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## Trial Testimony of Barton Epstein

Barton Epstein

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1 THE STATE OF OHIO, )  
2 ) SS: RONALD SUSTER, J.  
3 COUNTY OF CUYAHOGA.)  
4  
5 IN THE COURT OF COMMON PLEAS  
6  
7 CIVIL DIVISION  
8  
9 ALAN J. DAVIS, Special )  
10 Administrator of the Estate, )  
11 of SAMUEL H. SHEPPARD, )  
12 )  
13 Plaintiff, )  
14 )  
15 -v- ) Case No. 96-312322-CV  
16 ) C/A: N/A  
17 )  
18 STATE OF OHIO, )  
19 )  
20 Defendant. )  
21 )  
22 - - - -  
23  
24 TRANSCRIPT OF PROCEEDINGS  
25 )  
26 - - - -  
27  
28 APPEARANCES:  
29  
30 TERRY H. GILBERT, ESQ., and  
31 GEORGE H. CARR, ESQ., and  
32 GORDON S. FRIEDMAN, ESQ.,  
33  
34 on behalf of the Plaintiff;  
35  
36 WILLIAM D. MASON, ESQ.,  
37 STEVEN A. DEVER, ESQ.,  
38 DEAN BOLAND, ESQ., and  
39 KATHLEEN MARTIN, ESQ.,  
40  
41 on behalf of the Defendant.  
42  
43  
44 Bruce J. Bishilany  
45 Official Court Reporter  
46 Cuyahoga County, Ohio

1 THE STATE OF OHIO, )  
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20 Defendant. )  
21 )  
22 - - - -  
23  
24 TRANSCRIPT OF PROCEEDINGS  
25 )  
26 - - - -  
27  
28 BE IT REMEMBERED, that at the January,  
29  
30 A.D. 2000 term of said Court, to-wit,  
31  
32 commencing on Monday, January 31, 2000, this  
33  
34 cause came on to heard before the Honorable  
35  
36 Ronald Suster, in Courtroom No. 20B, Courts  
37  
38 Tower, Justice Center, Cleveland, Ohio, upon  
39  
40 the pleadings filed heretofore.  
41  
42  
43 - - - -  
44  
45

1 WEDNESDAY MORNING SESSION, MARCH 1, 2000  
2 THE COURT: Good morning,  
3 ladies and gentlemen.  
4 THE JURY: Good morning.  
5 THE COURT: Good morning,  
6 counsel, again.  
7 MR. GILBERT: Good morning,  
8 Judge.  
9 THE COURT: I have had the  
10 opportunity to spend some time with counsel  
11 already.  
12 You may call your witness, Mr.  
13 Gilbert.  
14 MR. GILBERT: We would call  
15 Barton Epstein to the stand.  
16 THE COURT: I take it you  
17 have no objection to being televised or  
18 recorded?  
19 THE WITNESS: No.  
20 - - - -  
21 The PLAINTIFF, to maintain the issues  
22 on their part to be maintained, called  
23 as a witness, BARTON PAUL EPSTEIN,  
24 who, being first duly sworn, was  
25 examined and testified as follows:

1 - - - -  
2 DIRECT EXAMINATION OF BARTON PAUL EPSTEIN  
3 BY MR. GILBERT:  
4 Q. Good morning, Mr. Epstein.  
5 Would you please state your name for the  
6 record?  
7 A. Barton Paul Epstein.  
8 Q. Where do you currently reside?  
9 A. I reside at 4520 Sedum Lane in Edina,  
10 Minnesota.  
11 Q. What is your occupation?  
12 A. I am a criminalist, a forensic scientist.  
13 Q. And are you currently employed in any capacity?  
14 A. Yes. Currently I'm an adjunct professor. I  
15 teach at the University of St. Cloud a forensic  
16 science course and I'm a forensic consultant.  
17 Q. How old are you?  
18 A. I'm 57 years old.  
19 Q. Would you tell the ladies and gentlemen of the  
20 jury your educational background?  
21 A. Yes. I received my bachelor of science degree  
22 from the University of California at Berkeley in 1965,  
23 my degree was a bachelor of science in criminalistics,  
24 the area of study dealing with the application of  
25 sciences to criminal/legal matters.

1 Q. Have you attended any specialized courses in  
2 the field of criminalists, criminalistics?

3 A. Yes. Over the course of the last 30-plus years  
4 I have attended many, many seminars. They have  
5 included some concentrated study in Chicago at McCrone  
6 Institute dealing with identification of small  
7 particles and the use of the microscope. I have  
8 attended a seminar in wood identification at the  
9 Institute of Paper Chemistry. Late in the 1970s I  
10 traveled to England and Scotland Yard Laboratory,  
11 consulted with colleagues there on a blood grouping  
12 technique with hemoglobulins, and more recently I have  
13 traveled in the 1980s, late '80s up to Ottawa for a  
14 two-week intensive course on the application of  
15 mathematics and physics to blood stain patterns.

16 Q. Could you tell the ladies and gentlemen of the  
17 jury your employment background?

18 A. Yes. After I graduated from the University of  
19 California, the next year, 1966, I traveled to  
20 Minnesota and was hired at the State Crime Laboratory  
21 of Minnesota and proceeded to spend the next 32 years  
22 at the state crime lab. My first eight years were as  
23 a crime lab analyst working cases that were submitted  
24 by all the law enforcement agencies of the state of  
25 Minnesota, especially in the area of trace evidence,

1 glass, hairs, fibers and blood grouping, then was in  
2 the ABO blood group and some of the other blood group  
3 systems.

4 I became supervisor of this trace evidence  
5 area, supervising and working cases until the 1980s at  
6 which time I became an assistant director of the state  
7 crime lab which dealt with the day-to-day operations,  
8 but also I was involved with the crime scene  
9 activities of our laboratory. Our laboratory goes out  
10 to actual homicide investigations throughout the  
11 state. I was greatly involved with that operation  
12 both as supervisory but also going out to crime scenes  
13 until I took an early retirement after 32 years about  
14 a year and a half ago to be able to teach forensic  
15 science, and I have done some forensic consulting for  
16 about the last 15 years.

17 Q. Now the Minnesota Bureau of Criminal  
18 Apprehension Laboratory, is that a statewide  
19 organization?

20 A. Yes. It furnishes laboratory services for the  
21 whole state of Minnesota to all the law enforcement  
22 agencies, sheriffs, and the chiefs of police in any  
23 criminal case and submit evidence to that laboratory  
24 for examination, reports are written and if needed  
25 testimony is given in court.

1 Q. Now as a criminalist, how many cases,  
2 approximately how many cases have you worked on?

3 A. Over my career I estimate about 1500 cases.

4 Q. And approximately how many times have you  
5 testified in court?

6 A. Total times, probably 150 to 200. Somewhere in  
7 that range over 30 years.

8 Q. Mr. Epstein, do you belong to any professional  
9 societies or organizations?

10 A. Yes, I do.

11 Q. And tell us what groups you are a member of.

12 A. The major professional organizations are the --  
13 I was the past president and a member of the State of  
14 Minnesota Microscopy Society, I'm a member of the  
15 British Forensic Society, I was past president and now  
16 a member of the Midwest Association of Crime  
17 Laboratory of Forensic Scientists. All the members of  
18 crime laboratories from Ohio, Illinois, Michigan,  
19 Minnesota, have a regional organization. I'm a member  
20 of the national, actually international organization,  
21 The American Academy of Forensic Sciences, and I'm a  
22 distinguished member of the International Association  
23 of Blood Stain Pattern Analysts.

24 Q. Have you served on any specialized committees  
25 relating to your field of interest?

1 A. Yes. I have been called on to two or three  
2 different committees. In 1970s and '80s I was a  
3 member of one organization which was to promote  
4 microscopy, the use of microscopes in crime labs  
5 across the country and we traveled, a group of us, to  
6 promote these types of examinations. I was a member  
7 of a group that standardized the examination of the  
8 glass in the laboratory.

9 In 1991 to 1995 I was on the board of the  
10 American Board of Criminalistics which was a group of  
11 representatives, I represented the Midwest but a group  
12 of ten people that got together and still in existence  
13 to actually set standards for crime lab personnel  
14 across the country to setup a standard test and  
15 background for people that are involved in this area.

16 Q. Now can you tell the folks on the jury what  
17 your background is and experience with respect to the  
18 area of blood spatter analysis?

19 A. I was really first introduced to this area when  
20 I was in college at the University of California in  
21 1964 and '65. I was in the school of criminology  
22 majoring in criminalistics, my professor was Dr. Paul  
23 Kirk and he introduced us to this area just briefly  
24 with a few lectures on dropping blood stains and  
25 experiments that could be done.

1 Then I traveled to Minnesota in 1966. Another  
2 colleague and I, really about ten years later we are  
3 seeing a lot of crimes that we were doing blood  
4 grouping but they involved blood spatter so we started  
5 to do more experiments and at a certain point we  
6 actually developed a lot of experiments that we could  
7 then share with other colleagues in the Midwest and we  
8 developed an actual workbook and now put on workshops  
9 annually to teach this area.

10 Q. Mr. Epstein, showing you what has been marked  
11 as plaintiff's exhibit 308, can you tell us what that  
12 document is?

13 A. Yes. Plaintiff's exhibit 308 is the copy of  
14 the manual, it's actually a 100-page workbook that we  
15 use in our workshop annually. It is actually now  
16 being used by other instructors. I know Toby Wolson  
17 in Florida and there is a Canadian group that is using  
18 this just as the work group. It shows experiments to  
19 be done and there is a way to record the results of  
20 those experiments.

21 Q. And that publication and workbook is used by  
22 other blood spatter experts around the country?

23 A. Yes, it is really used to help teach a course.  
24 It is really sponsored by the Midwest Association.  
25 I'll say that the monies received go directly to that

10

1 organization.

2 Q. Now have you done experiments on your own over  
3 the years in terms of the area of blood spatter  
4 analysis?

5 A. Yes. Many.

6 Q. About how many cases have you worked on in the  
7 area of blood spatter analysis, actual cases, crime  
8 scenes?

9 A. Actually blood spatter cases, I indicated  
10 before that I worked on 1500 cases, but that included  
11 all my crime lab experience. I would say about 150 to  
12 200 cases I have worked on.

13 Q. And approximately how many of those have you  
14 actually walked into a courtroom and testified  
15 regarding -- as an expert regarding these matters?

16 A. I would say approximately 40 cases of blood  
17 spatters.

18 Q. And have you testified outside of Minnesota on  
19 these cases?

20 A. Yes, I have.

21 Q. What training activities have you been involved  
22 with with respect to blood spatter?

23 A. While I was of course employed at the State  
24 Crime Laboratory of Minnesota I was asked to present  
25 to many Minnesota groups, which included a number of

1 annual conferences for the chiefs of police, the  
2 sheriff's department, but also was asked locally to  
3 give lectures to the public defenders office, the  
4 judge's organization, as well as William Mitchell Law  
5 School and the University of Minnesota Law School. I  
6 have traveled and given lectures at other professional  
7 associations, some of which I mentioned. The Midwest  
8 Association of Forensic Scientists have annual  
9 meetings and I presented as well as in New York at the  
10 Northeastern Association and California Association of  
11 Criminalists and in Florida and in Kansas City and up  
12 in Canada at an international meeting.

13 So I have presented at a number of those types  
14 of organizations, and as I indicated probably the most  
15 intensive training that we do annually is, another  
16 colleague and I put on a one-week intensive course in  
17 Minnesota where people come from all over the United  
18 States and some international students as well to  
19 really do hands-on experiments in blood stain patterns  
20 at scenes and on clothing as well.

21 Q. Mr. Epstein, showing you what has been marked  
22 as plaintiff's exhibit 178 D, can you identify that  
23 document?

24 A. Yes, this appears to be a copy of my resume, my  
25 curriculum vitae.

12

1 MR. GILBERT: Do you want a  
2 copy, Judge?

3 THE COURT: Yes. I would  
4 like to see that, and let me see the workbook,  
5 also.

6 Q. Now you have stated that you have taught others  
7 in the area of blood stain pattern analysis. Will you  
8 give us a run-down of what the most important things  
9 that you teach your students?

10 A. I would say at the end of everything, I mean  
11 people do a lot of experiments, dropping and hitting  
12 and shoot into blood, but there are four or five major  
13 concepts that we want to impart on everyone leaving  
14 the course, and one is that science is neutral. That  
15 whatever experiments you do and whatever results you  
16 do with respect to blood spatter, it does not matter  
17 who is asking you the questions, whether it is coming  
18 from a prosecutor or from a defense attorney or if it  
19 is a criminal matter or a civil matter. What you're  
20 findings are are what they are and you need to be  
21 neutral in your approach to your examinations.

22 The second thing is we, Terry Laber, another  
23 colleague and I, propose that you should always, in  
24 this area of blood stain pattern, use two people; in  
25 other words, when you evaluate blood stain patterns

1 that because there is sometimes subjective evaluations  
2 involved, you make some evaluations, have another  
3 trusted, trained colleague make evaluation and you  
4 discuss the results to make sure that you don't get  
5 far afield. Some of the questions, couldn't those  
6 stains be produced in a different way, couldn't the  
7 person have been sitting down instead of standing up,  
8 and it forces you to think through and make sure you  
9 don't overstate any conclusions.

10 The next, a very important point is that you  
11 should examine the evidence itself if at all possible.  
12 Now there is sort of a priority level. The first is  
13 if there is a crime scene there is usually -- this is  
14 blood after an aftermath of a brutal event, you should  
15 go to the crime scene if at all possible because there  
16 you will see everything undisturbed and you will see  
17 it in three dimensions. If there is blood on this  
18 podium you will see it where it is but you will also  
19 be able to look underneath the podium to see if there  
20 are spatters coming up. You can then put it into  
21 context of the whole crime scene. You can ask  
22 questions of whether people had been there or not in  
23 there and you can see things before anything is moved.

24 The second would be if that isn't possible,

1 the crime scene, the second best would be to get the  
2 actual items themselves that are involved either if  
3 there is a perpetrator or a suspect, to get their  
4 clothing, or if there is items that are stained at the  
5 scene, if there is a chair, if there is a bedspread or  
6 other items, then you actually should get those items  
7 and examine them in the laboratory because again you  
8 could see the actual stains that are there.

9 Of course, the third would be if those aren't  
10 available is to actually use photographs, which  
11 happens in many cases. It is not preferred but you  
12 can still do evaluations with photographs. You have  
13 to realize that photographs -- you have to be very  
14 cautious using them because they are only a  
15 two-dimensional representation. They are taken from a  
16 certain view and you may not be able to see  
17 everything. You can't see behind that or sometimes a  
18 flash or other things can hide certain materials. So  
19 you have to be very cautious, but you still can make  
20 interpretations.

21 I guess there is one other thing, not to  
22 belabor, but you have to realize that certain stains,  
23 types of stains, their patterns can overlap and you  
24 have to be cautious in interpreting them. In other

1 stains, but you can also get small stains from other  
2 mechanisms, from people coughing blood or blood  
3 dripping into blood, other ways that you can do that.  
4 So in certain cases, in a specific case you may want  
5 to do some supplemental experimentation to confirm  
6 what you believe is the mechanism or what happened in  
7 that particular case.

8 Q. Mr. Epstein, what role should blood stain  
9 pattern analysis play in an investigation of a crime  
10 scene?

11 A. Blood stain patterns, their evaluations are  
12 just another part of the total evaluation of a crime  
13 scene. In other words, it should be used just like  
14 the person doing trace evidence evaluation, doing  
15 firearms examination along with the medical examiner  
16 involved in the case, the investigators in the case.  
17 It has to be part of the total evaluation. It's very  
18 seldom that it will stand on its own to point to the  
19 actual conclusion, but it often can give good  
20 information that along with the rest of the evaluation  
21 is helpful.

22 Q. Is blood stain pattern analysis, the field  
23 itself, a specialized field requiring certain  
24 qualifications?

1 been developed over especially the last 20 years into  
2 an area that is a specialty, if you will, or a subpart  
3 of general criminalistics, the area of evaluating  
4 physical evidence, and in the laboratory those people  
5 that are doing biology or blood grouping, but it does  
6 take more than just reading about it for 15 minutes,  
7 it takes some additional training. At minimum people  
8 in this international association of blood stain  
9 pattern analysis, at minimum people need to attend a  
10 40-hour one-week course such as the one that we have  
11 put on and other people put on, very good workshops,  
12 and then people really should have additional training  
13 under people with experience, almost like a journeyman  
14 training to make sure that people continue to learn,  
15 and there should be some practical exercises that they  
16 do every year. So it does take a person time and to  
17 continue in this area.

18 Q. In your opinion, should someone who doesn't  
19 have this kind of experience and training be in the  
20 business of offering opinions on blood stain pattern  
21 analysis?

22 MR. DEVER: Objection.

23 THE COURT: Overruled.

24 A. No. A person that doesn't have the proper

1 should not be testifying, they need to pass a certain  
2 level of knowledge and experience.

3 Q. Now can you tell the folks on the jury what is  
4 blood stain pattern analysis?

5 A. Yes. Generally it is in the brutal events  
6 where there is blood shed, usually aggravated assaults  
7 and homicides, it's the -- there is blood distributed  
8 at these scenes or on clothing. It is really the  
9 looking after the aftermath, the size and the shape  
10 and the distribution of all these blood stains and to  
11 try to interpret them to enable you to reconstruct  
12 what has happened or what could not have happened at  
13 certain situations.

14 Q. Now, Mr. Epstein, did you bring some materials  
15 with you to help explain what you mean in this field  
16 of blood stain pattern analysis?

17 A. Yes, I did.

18 Q. And with the permission of the Court, can you  
19 step from the podium --

20 THE COURT: Yes.

21 Q. -- and be able to explain through visual aids?

22 A. This first aid that I brought is to demonstrate  
23 that from a blood stain, any blood stain you can see  
24 and determine two major facts, you can tell what  
25 direction the blood was going and at what angle it hit

1 the surface.

2 We have all had a common experience. If you  
3 have a ketchup or blood drip from your finger straight  
4 down to the ground, it hits and what shape? It's a  
5 circle, which looks like this stain on your left which  
6 is a round stain.

7 Now if you are in an automobile and you have a  
8 windshield and rain is coming down, it hits at an  
9 angle and it is elongated, it starts to look more like  
10 these stains on the left, they have hit the surface at  
11 an angle. All these stains are coming from the top  
12 down. You can see the way they go from a head to a  
13 tail. They are pointing in the direction that they  
14 hit.

15 So we can tell the direction that the stain hit  
16 and by looking at the shape, the width and the shape  
17 of the stains we can determine what angle it hit the  
18 surface. If you look at the 30 degree stain, it's  
19 twice as long as it is wide. So the ratio is two to  
20 one. Every time that we see a stain, we usually don't  
21 say every in science, but every time we see a stain  
22 that's twice as long as it is wide, we know that it  
23 hit at 30 degrees.

24 If there was a stain on this banister going  
25 towards you and it was twice as long as wide, it hit

1 at 30 degrees. So you can see what we can start to  
2 do, we can find out where it came from and this can  
3 aid us in evaluating actual blood stains.

4 Q. Now is there a term called castoff pattern?

5 A. Yes.

6 Q. Can you demonstrate that, what that is?

7 A. We have just looked at drops there. Now  
8 sometimes at crime scenes we see specific patterns  
9 that we have categorized. Now if you are washing your  
10 hands in the morning and have water on your hands and  
11 you go with your hand like this in front of a mirror,  
12 (indicating) you will get what we call castoff  
13 pattern. The water will hit at a circular and will  
14 get elongated and it will look similar to this  
15 pattern. This happens to be blood that was on a hand  
16 that went from your left to right.

17 You can see what happens is that you get stains  
18 that are smaller now than drops of blood, typically  
19 quarter inch or so, they can be slightly smaller,  
20 slightly larger, and they are in a line. You see  
21 there is a tendency for this to line up. They are all  
22 about the same size. They start more circular, more  
23 90 degrees and then start to be elongated as it gets  
24 further away because the stains are hitting at 90 and  
25 then they are being castoff and hitting at an angle.

1 But it is a distinct pattern.

2 If you have enough of that you can see that  
3 this was caused by castoff and that can be from a  
4 hand, it can be from a weapon, it can be from blood on  
5 hair, it can be a number of things that castoff blood  
6 at a crime scene.

7 Q. Now what about the notion of impact spatter or  
8 pattern?

9 A. Yes. When somebody is hit, the blood comes to  
10 the surface or if there is blood on the surface from a  
11 pool of blood, but usually we are talking about  
12 someone being hit a repeated number of times, blood  
13 comes to the surface and when an instrument or a fist  
14 hits the blood when it is on that surface, it will  
15 breakup that blood into small pieces and it will  
16 scatter throughout the area. It will depend a lot on  
17 the instrument that's hitting. If there is an  
18 instrument that hits sometimes it will just force it  
19 out to the sides, other times it will force it out in  
20 360 degrees, but it will break it up into small  
21 pieces.

22 Now this is a target cardboard that we used in  
23 our workshop a couple years ago that blood was put on  
24 a surface and then this was about 18 inches away and  
25 you can see that and a hammer hit this blood. You can

1 see the small, have small stains that were broken, the  
2 stains were broken up. What is distinct here, there  
3 are a variety of sizes, there are some very, very  
4 small stains, a millimeter or less, and there are some  
5 that are up to maybe an eighth of an inch or slightly  
6 larger and you can get them slightly larger than that,  
7 depending on how much force is used.

8 You can also see in this particular target  
9 there is an area that is void, do you see this area in  
10 the center, it does not have any blood there and that  
11 happens often at crime scenes. That means that  
12 something obviously was in front of that when it was  
13 hit and hit, it stops here and then starts up abruptly  
14 over there. So a void here would indicate that  
15 something was in that area. In this case we had roll  
16 of paper but it could be the leg of a perpetrator or  
17 something else that would stop the blood.

18 So impact spatter is very small stains in a  
19 random manner. You don't see here like on the castoff  
20 pattern any lines of stains. This is what is  
21 characteristic of impact spatter.

22 Q. Okay. And have you -- can you also demonstrate  
23 for the jury the notion of overlap stain pattern and  
24 explain what that is?

25 A. Well, I didn't bring any other targets, but as

1 big hitting over here.

2 Q. Is it common, Mr. Epstein, for spots of blood  
3 to be confused with impact spatter by lay people?

4 A. If there is only a few, that's the major point  
5 that we teach is that you need a whole pattern to  
6 make, meaning a large group of stains. If you only  
7 have one, two or three very small stains we know that  
8 there is a number of mechanisms that can cause that,  
9 including just contact with an item. So just seeing a  
10 few small stains does not mean there is an impact to  
11 the blood.

12 Q. Unfortunately we are not in the classroom so  
13 the jury can't ask questions. We will have to wait  
14 until later on in the case.

15 What you just told the jury is something that  
16 you go into a whole lot more detail in your workshops  
17 and in your lectures; is that right?

18 A. Yes, I would say that's probably the very  
19 brief, brief, brief synopsis of at least a general  
20 overview of a number of the things that this area can  
21 help you with, yes.

22 Q. Now you did, going back a bit to your earlier  
23 years, you were at the University of California  
24 Berkeley and you did study under Paul Kirk; is that  
25 right?

1 I mentioned to you before if you have just a few of  
2 these stains, if you only a few stains and not a whole  
3 pattern, it would be hard to tell exactly what caused  
4 them. You could have someone that has coughed blood  
5 or other mechanisms that could overlap in those  
6 patterns.

7 I did bring one other card here that is of what  
8 we call contact stain which I think is important to  
9 understand, and this one people can see it pretty  
10 readily, this is hair that's been -- that is bloody  
11 that's come in contact here with this cardboard.

12 You can see smears of blood that are here and  
13 you can also see, if you look closely, some very small  
14 stains as well. This. You can see down where I am  
15 pointing here, I don't know if you can see it closely,  
16 you have to maybe get it into your hand, a series of  
17 three or four stains that is caused by the hairs  
18 rubbing across the surface can leave small stains.

19 You can see up in this area that's down here  
20 there is actually a couple of very small stains that  
21 are caused from the hair hitting the target or any  
22 smooth surface. So my point here is if you find just  
23 one or two small stains without having a whole  
24 pattern, very difficult to tell exactly what caused  
25 this. This was caused by the hair. There wasn't a

1 A. Yes, I did.

2 Q. And you knew Paul Kirk?

3 A. Yes, as a professor. It was a  
4 professor/student relationship.

5 Q. And did you know what his contribution was to  
6 this area of blood stain pattern analysis?

7 A. Yes. He, of course at that time that was 1964  
8 and '65, he had worked on this case back in 1955. He  
9 was called in after the first trial to evaluate blood  
10 stain patterns at this -- in this case and his work on  
11 that case produced an affidavit to the court and it  
12 outlined a lot of his findings, all his experiments  
13 that he used.

14 We have used that affidavit, others in the  
15 field, as probably the first primary pioneering work  
16 in the scientific study of blood stain patterns. We  
17 hand this affidavit out to our students, actually mail  
18 it to them before each workshop for them to read  
19 beforehand. So in that vein, Dr. Kirk was one of the  
20 first people to seriously study blood stain pattern.

21 Q. Maybe we are jumping ahead a little bit, but in  
22 your review of this case was there, in the initial  
23 investigation of the Marilyn Sheppard homicide, any  
24 blood stain pattern analysis done at the original  
25 crime scene investigation?

1 A. The simple answer is no. I must say I have  
2 evaluated and looked over the notes and testimony of  
3 Mary Cowan and many others, and I must say they did a  
4 good job of what they were doing. They didn't have  
5 any appreciation, in my opinion, to evaluating of --  
6 blood stain patterns at that time weren't being  
7 conducted, but they did not evaluate blood stain  
8 patterns at the crime screen.

9 Q. And who was the person, the criminalist to do a  
10 systematic or comprehensive blood stain analysis of  
11 that crime scene?

12 A. I believe it was Dr. Kirk who was called in  
13 after the first trial in January, I believe, of 1995.

14 Q. 1955.

15 A. 1955.

16 Q. Mr. Epstein, can you tell the jury how you got  
17 involved in this case, when you became an expert on  
18 this case?

19 A. Yes. Really I was contacted in about July of  
20 1998 by the Public Broadcasting System that were  
21 producing a NOVA special that was to compare what was  
22 done in or evaluate what was done in 1954 and what  
23 possibly could be done now and they wanted to know if  
24 I would be involved in that evaluation and it was  
25 specifically in my expertise of blood stain patterns

1 and I said I would.

2 They came to Minnesota, we did some filming in  
3 1998 and that led me also to come here to Cleveland  
4 because they were putting together a scene, a mock  
5 scene to help them film some demonstrations and at  
6 that time I met you and a number of other people  
7 involved in the NOVA production. You indicated at  
8 that time that there may be something later on, a  
9 civil action, that you may be representing the family,  
10 and subsequently on March of 1999 you contacted me and  
11 asked if I would further evaluate materials in this  
12 case and if I would come and testify.

13 Q. And have you received any compensation from  
14 NOVA for your appearance in that science special?

15 A. No, there was no compensation. They paid for  
16 air flights and a hotel, but no fees.

17 Q. And have you received -- how much time have you  
18 spent on this case probably, approximately how much  
19 time?

20 A. I would say along with -- I would say 200, 300  
21 hours with the days spent with the NOVA production and  
22 evaluating materials.

23 Q. And you came to Cleveland recently for the  
24 exhumation of Marilyn Sheppard?

25 A. Yes.

1 Q. Spent time here on that?

2 A. Yes.

3 Q. And have you been in Cleveland before meeting  
4 with me from time to time?

5 A. Yes. And depositions, et cetera.

6 Q. And the two to 300 hours that you worked on  
7 this case, have you been compensated for that?

8 A. I received no fee for that.

9 Q. And are you expecting a fee?

10 A. I am expecting no fee at all.

11 Q. And why are you doing this?

12 A. Probably for one -- a couple of reasons. One,  
13 I was informed by -- I asked about fees when you  
14 contacted me and you simply stated -- I said, are  
15 there going to be any fees available and you simply  
16 stated that the family does not have money to pay  
17 fees. I said okay, will you pay expenses, and you  
18 said yes, you would pay expenses. And so that was a  
19 simple matter.

20 But why would I do that is because this was an  
21 area of blood stain pattern that I believe I could  
22 contribute. I have the time now to do that and I  
23 wanted to do it on a personal level to see how much I  
24 could aid in this case.

25 Q. In your review of this case, were you provided

1 materials to help you understand the nature of the  
2 blood evidence in this case and to help you formulate  
3 any opinions?

4 A. Yes, I was.

5 Q. And can you give us a run-down on the kind of  
6 things that you looked at?

7 A. Yes. I may miss a few things here but they are  
8 all listed in my reports. But I can tell you briefly  
9 I was -- I received the transcripts of a number of  
10 people that testified in the first trial and second  
11 trial, criminal trials. I have the reports of Mary  
12 Cowan who did evaluations from the coroner's office.  
13 I have Dr. Kirk's affidavit. I was given some copies  
14 of photographs of the crime scene and later on  
15 digitized copies of slightly better quality  
16 photographs, although I must admit I never did receive  
17 the actual original copies which would have been  
18 helpful. But all that material I have received. I  
19 have received, of course, some other reports of other  
20 experts as well.

21 Q. And I think you did mention the notion of  
22 photographs. Obviously you weren't at the crime  
23 scene, we know that.

24 A. Right.

25 Q. But the use of photographs in order to render



1 opinions, what do you have to say about that in terms  
2 of a case such as this 45 and a half years later?

3 A. Well, like I originally told the jury, you have  
4 to be very careful with photographs because they limit  
5 the number of things that you can observe. You always  
6 want to say, well, I wish a photograph was taken in a  
7 different position. So sometimes you have to be very  
8 cautious and you are limited and I guess without  
9 showing you specific photographs which I may, you have  
10 to be very cautious in your interpretation. I can't  
11 say more than that.

12 Q. Nevertheless, based on the materials that you  
13 reviewed in this case, were you able to generate some  
14 opinions and observations that would be useful to this  
15 jury?

16 A. Yes, I was.

17 Q. And let's start by, and I would ask the Court's  
18 permission if Mr. Epstein could testify from the  
19 overhead projector to make it easier for him to make a  
20 presentation of photographs.

21 THE COURT: If that will  
22 assist him.

23 MR. GILBERT: I think it will  
24 go a lot more smooth than having George do it

1 THE COURT: Yes, I will allow  
2 it. You may proceed.

3 MR. GILBERT: May we approach  
4 the bench for one second?

5 THE COURT: Sure. Why don't  
6 you just stay seated for a minute.

7 (Thereupon, a discussion was had  
8 between Court and counsel at sidebar.)

9 THE COURT: You may step down  
10 and proceed.

11 Q. Mr. Epstein, one of the issues in this case,  
12 first I want to go into the murder room itself and ask  
13 you a series of questions concerning what conclusions  
14 and observations you can make from your expertise  
15 regarding the murder room.

16 Can you tell us generally what can be said  
17 about examining this particular murder room scene?

18 A. From the blood stains in that room there is a  
19 number of things that could be determined. One is  
20 where Marilyn Sheppard, what her position was when she  
21 was being bludgeoned, where she physically was when  
22 the number of blows, once bleeding started, was  
23 occurring.

24 We can tell where the perpetrator was standing

1 room that there is some other thing besides the impact  
2 spatter that was around, there was some other blood  
3 that was deposited there from some other mechanism  
4 that -- there was some other bleeding occurring in  
5 that room. We can tell that once she was in this  
6 final position it does not appear that she was moved  
7 until she was taken away from the scene.

8 Q. Why don't we start with the position of the  
9 body during the course of the bludgeoning, the attack.  
10 You will call out the number?

11 A. If I just say exhibit 300?

12 Q. That's fine.

13 THE COURT: Yes.

14 A. Exhibit 300 shows -- shows Marilyn Sheppard as  
15 she was photographed there at the scene and it's a  
16 shot looking over her body toward the east wall and  
17 her head in this area shows stains that are radiating  
18 out. You can't quite see the detail but in the  
19 photograph there are stains there pointing toward the  
20 pillow, they are radiating out toward the pillow as I  
21 showed you to begin with, how they point in the  
22 direction of travel.

23 Q. Here is a laser pointer.

24 A. There are stains when you look closely at the

1 towards that direction. There are hundreds of stains  
2 on the doors. There is the hallway door and what has  
3 been referred to, it confused me for many years, as  
4 the wardrobe door, the wardrobe door is a closet door.  
5 So there are hundreds of stains.

6 Q. Why don't we just call it closet door from now  
7 on?

8 A. Okay. We will call it the closet door. It was  
9 referred to as -- okay. Closet door. There are  
10 hundreds of stains, and we will show better pictures  
11 of these, that are small random sized stains. Also we  
12 will talk about a large stain, that is a stain that  
13 was not caused by impact.

14 Now if we take a closer look, this is 1135,  
15 this is a close-up of that area of that large stain on  
16 the closet door right here. But you can see the  
17 random sized stains that are on the door that are  
18 consistent with impact spatter as being broken up  
19 coming from the area of her head. But you can also  
20 see on this that these stains were originating from  
21 down below. Do you see on the woodwork here, there  
22 are little grooves that are in that woodwork, there  
23 are actually stains that come to hit there that had to  
24 come from below that surface and come up and hit

1 is where her head was on the bed.  
 2 Q. I want you to put back that original photograph  
 3 and explain the direction of the spatter.  
 4 A. Where I am talking about is we were looking  
 5 right here. Again, this is slightly -- the photograph  
 6 is pointing down so this is actually about 18 inches  
 7 off the ground. The area that I was pointing to, this  
 8 area right here, and we will see it over on the other  
 9 side as well. The stains were coming from below which  
 10 is where her head is. She wasn't sitting up when she  
 11 was being hit. Blood does not start up high and go  
 12 down and up. It has to originate and go up.  
 13 Q. Was it your opinion that she was lying on the  
 14 bed during the course of the beating?  
 15 A. Let me make it clear. When she was hit and  
 16 started to bleed and then hit repeated times she was  
 17 down on the bed. Could she have been in some other  
 18 position initially sitting or on the side or some  
 19 other position and hit initially or choked or some  
 20 other without any blood shed, without any blood  
 21 spatter, she could have been in some other position.  
 22 I can only comment from the blood spatter that's  
 23 there. Once she was down in that position it appears  
 24 that a great number of blows were hit right from where  
 25 she is.

1 Q. Now you said that the position of her body,  
 2 that it was not moved after she died?  
 3 A. Right.  
 4 Q. How do you -- explain that to the jury.  
 5 A. Well, there are two bases for that. One is all  
 6 these stains that are on the door, and there are some  
 7 on this other bed I will show you as well, the bed  
 8 that was next to Marilyn that radiated out, they all  
 9 point back right to where her head is. So it is  
 10 within reason that we can tell from the photographs  
 11 her head was approximately in this position, whether  
 12 it was an inch up or an inch down, fine, but her head  
 13 was not up here and then hit and then pulled down, we  
 14 would see -- you would see this huge stain underneath  
 15 her coming down, but also it would cover up all these  
 16 radiating stains.  
 17 Just like if you step in a water puddle, the  
 18 stains go out like spokes in a wheel, that's exactly  
 19 what is observed here. All these stains radiate out  
 20 from this point and nothing was moved after that.  
 21 Q. Are you able to offer an opinion as to whether  
 22 or not the position of her body with her legs  
 23 underneath the post over there, that that was the  
 24 final position that she was in during the course of  
 25 the attack?

1 A. If I understand your question, all I can say is  
 2 she was beaten here, her head was in that position.  
 3 These types of activities are very ongoing, very  
 4 dynamic, and her -- during the actual assault her legs  
 5 could be -- did not have to be in that position, they  
 6 could have been up or defending herself which we see  
 7 in cases and then subsequently after death the legs  
 8 straighten out and go down.  
 9 My understanding is this blanket was not -- or  
 10 sheet came after the event, too, I believe Dr.  
 11 Sheppard testified that he placed that on the body.  
 12 So things can change but I can't -- I cannot say that  
 13 that's where her legs were when she was being beaten.  
 14 Q. Can you say that from the blood stain pattern  
 15 that what you see is inconsistent with Marilyn  
 16 Sheppard being struck where she laid there?  
 17 A. Yes.  
 18 Q. Okay.  
 19 A. The blood stain patterns, like I told you, it  
 20 is clear that after the blood came to the surface she  
 21 was hit right in that position causing these spatters  
 22 to radiate everywhere.  
 23 Q. Okay. Now let's talk about the positions of  
 24 the attacker during the attack. Can you offer any  
 25 observations regarding that?

1 A. Yes. This is 303. I just wanted to show this  
 2 is after Marilyn was removed. I just wanted to show  
 3 you that there is a bed with right --  
 4 MR. DEVER: What is the  
 5 number on that?  
 6 A. 303. That the bed next to hers going towards I  
 7 believe that's the west, you cannot -- this is a  
 8 limitation of the photograph. There is a lot of small  
 9 blood stains on that bed and on the pillow that  
 10 radiated from the side of her head.  
 11 By the way, this stain, it looks like something  
 12 was up here. In the original photograph that stain  
 13 isn't there. Just how things change. Here -- this is  
 14 300 and you see over here by the top right-hand  
 15 corner, if you will, there is no large soaking stain,  
 16 there is a soaking stain here. Later on, I'm sure  
 17 they had to remove her, they -- by doing that now all  
 18 of a sudden this photograph shows a large soaking  
 19 stain in this area that was caused by her removal.  
 20 But this surely wasn't there when it was first  
 21 photographed. Just an observation so you don't  
 22 interpret that any other way. But there are small  
 23 stains on this bed which later on Dr. Kirk examines.  
 24 Q. What number is that?  
 25 MR. CARR: That's 1128.

1 A. That's 1128. You can see that he is placing  
2 measurement areas to where he sees the small stains.  
3 He sees some very small stains on the underside again  
4 of this pillow, and on 1130 these are more close-up  
5 pictures of the stains that were on that bed. You can  
6 see how small these stains were and they are again  
7 radiating out. Most of them are hitting at about 90  
8 degrees because they are coming directly across from  
9 her head. And on 1129, on the pillow, again you can  
10 see how there are very small stains on the pillow.

11 Q. That's the pillow on the other bed?

12 A. On the other bed. It confirms that the blood  
13 stains were from down below and radiating out across  
14 that area.

15 What Dr. Paul Kirk found in January is when he  
16 looked at that room, the stains, when you looked at  
17 the door, this is 1126, the stains that radiated out,  
18 they restored the doors from the trial, they allowed  
19 him to reconstruct that bedroom. The small stains,  
20 and here is the large one, they go onto the wall and  
21 they stop right in this area. There is a void. There  
22 is no staining on the wall. It goes all the way to  
23 the north wall and then started up again about two  
24 feet on the north wall.

25 So just like I showed you before, it was clear

1 that something was in this area to block those stains,  
2 otherwise there would be stains going all the way on  
3 around the room. Then there are stains.

4 It continued on. He drew a diagram, number  
5 1122. This is a diagram from looking down at the  
6 bedroom that Dr. Kirk drew and he was really  
7 indicating here that he saw blood stains on these two  
8 doors, then there was an absence, a blood free area  
9 region that went all the way around this area, and he  
10 describes and has photographs showing blood stains  
11 going around the whole room, not as many that were on  
12 the door but going around the whole room. And of  
13 course on the bed all these spatters, and it shows  
14 this area is blood free and this is consistent with --  
15 at this area about three, two to three feet wide area  
16 and it is consistent with a person standing there.

17 Q. And, accordingly, what can you say about the  
18 position of the murderer or the attacker during the  
19 assault of Marilyn Sheppard?

20 A. It is my opinion that the attacker was standing  
21 down at the bottom of this bed, this is the northeast  
22 bottom, northeast edge of the bed while bludgeoning  
23 Marilyn Sheppard.

24 Q. Would the spatter emanating from Marilyn  
25 Sheppard during the attack have landed on the

1 attacker?

2 A. It is clear in my opinion, and I believe other  
3 people that have examined this, from Dr. Paul Kirk to  
4 myself to other blood stain pattern people that have  
5 looked at this, that because of the stains you see on  
6 the closet door and the other parts of the room, that  
7 the attacker would have gotten considerable blood  
8 spatter on them. This could include the face and hair  
9 and shirt all the way down the pants. The stains that  
10 were on the wall were up at least 24 inches or more.  
11 At 30 inches, clearly when you were standing in that  
12 area would have been hitting that attacker. Blood  
13 would have gotten on his belt, pants, and potentially  
14 the shoes and the other area.

15 Q. Do you know, Dr. Epstein, how high the mattress  
16 or the bed was before the -- there would have been an  
17 exposed area on the attacker?

18 A. I believe Mary Cowan measured that and it was  
19 18 inches.

20 Q. So can you try to show, I don't know if the  
21 jury can see?

22 A. 18 inches is approximately the knee level,  
23 approximately knee level. So of course then the  
24 stains are going out so it would expose from at least  
25 the knee level up that would have been exposed to a

1 lot of blood spatter in this case.

2 Q. Anything else about the position of the  
3 murderer during the attack that you need to indicate?

4 A. No.

5 Q. Let's move on to -- what hand, right or left,  
6 can you determine from the blood spatter which hand,  
7 right or left, the attacker used during the course of  
8 the attack?

9 A. I could not determine if the attacker was right  
10 or left-handed from the blood spatter that is there.  
11 It is on those doors especially there was no -- I did  
12 not see any -- there could be some mixed in with the  
13 impact but I couldn't see a lot of castoff stains,  
14 in-line stains that might give you a clue as to  
15 castoff, but I could not determine from the blood  
16 spatter if the person was right or left-handed. The  
17 perpetrator could have been either right or  
18 left-handed from the blood spatter. Now others may be  
19 able to give opinions. Sometimes medical examiners, I  
20 don't know if they will delve into this or not, but I  
21 could not determine.

22 MR. GILBERT: We are going to  
23 take a break now. I got the signal from the  
24 Judge.

25 THE COURT: Actually I got

1 the signal from my bailiff.

2 Ladies and gentlemen, we will take a  
3 mid-morning break. We will work this one  
4 around you. If you want to return to the  
5 fourth floor, you can, just come back up and we  
6 will be ready to go.

7 Do not discuss this case among  
8 yourselves, do not permit anyone to discuss it  
9 with you or in your presence. You are  
10 instructed not to form or express an opinion on  
11 this case until it is finally submitted to you.

12 (Thereupon, a recess was had.)

13 THE COURT: You may continue

14 BY MR. GILBERT:

15 Q. I believe before the break, Mr. Epstein, we  
16 were talking about whether you could tell from the  
17 blood spatter analysis what hand the attacker used. I  
18 believe you said you can't tell; is that right?

19 A. That's correct, from the blood spatter I cannot  
20 tell.

21 Q. Are you aware of what Paul Kirk thought about  
22 that?

23 A. Yes.

24 Q. What did he think?

1 the back doors, that there was an indication that this  
2 was from -- the pattern was produced by a left-handed  
3 attacker, that he saw patterns there that were from  
4 flung off blood, and I do not see that in the  
5 photographs. I do not agree with coming to  
6 that conclusion from the blood spatter evidence.

7 Q. Now you mentioned earlier about the large spots  
8 or the large stain on the wardrobe door, closet door.  
9 I made the mistake of saying wardrobe. Can you  
10 explain more about that?

11 A. Yes. Showing 302, this is a picture that we  
12 have seen similar before but it looks across the body  
13 of Marilyn Sheppard on to the doors and probably if  
14 not the most significant, one of the most significant  
15 things Dr. Kirk observed when he reexamined the room  
16 was that there was on this door hundreds of small  
17 stains but there was a large blood stain on the closet  
18 door that stood out that appeared different than the  
19 others. And this was about one inch in diameter.

20 Today after people have had some training this  
21 is exactly what they are looking for, is things that  
22 are different, that could be produced by a different  
23 mechanism and could therefore be taken up to have  
24 other blood grouping done on these stains.

1 number 1138. You can see the scale go down below it.  
2 That's one inch and you can see that this is looking  
3 straight on the door, it's almost symmetrical, slight  
4 running down, if you will, but there is -- this is too  
5 large of a stain to be produced by impact. Impact  
6 stains are broken up into way smaller stains. This  
7 was the stain that he observed and he had that stain  
8 scraped off and sent to him for further analysis.  
9 That wasn't done before the first trial and of course  
10 this was very, very significant.

11 Today we teach this in our courses. If you see  
12 bludgeoning, if you see dripping stains that look out  
13 of place, we want to collect those stains at that  
14 scene because it could have come from an attacker who  
15 was injured.

16 Q. So your opinion is that this large stain was  
17 deposited on the door by some other mechanism?

18 A. Yes.

19 Q. Can you tell us what other mechanism that would  
20 be?

21 A. Yes. The most likely is an accumulation of  
22 blood on a source and deposited a very short distance  
23 away, not touching. There is no smearing here, I  
24 don't see any smearing along this edge, but a larger

1 accumulated, for instance, on a hand and then slightly  
2 tossed, if you will, very close to that actual door  
3 and deposited there.

4 Q. Can you indicate the probable source of this  
5 stain?

6 A. Well, it looks -- subsequently to the removal  
7 there has been -- there was work done by Dr. Paul Kirk  
8 on some blood grouping. He observed some differences  
9 in this blood. This was -- differences in this blood  
10 compared to the blood of Marilyn Sheppard. He  
11 concluded that this came from a different person and  
12 you will hear and there has been subsequent work since  
13 it was saved doing other DNA examinations and the  
14 results of those that I have read work on indicate  
15 that this blood came from a different source than  
16 Marilyn Sheppard, indicates that in fact this came  
17 from a different person, I believe someone else was  
18 bleeding in that room.

19 Q. Now let's talk about the pillow.

20 A. Once again on 302 we are talking about the  
21 pillow that is found above her head in the corner,  
22 that's the southeast corner of the bed. This pillow  
23 right here. We only have -- I only have two pictures.  
24 I will show you one showing this side of the pillow

1 spatters on the pillow and you will see that a little  
2 closer, they are soaked, and there is a large soaking  
3 stain near the bottom of that pillow.

4 Now if you look from a different view, this is  
5 number 301, this is from the doorway looking across  
6 the bed. But if we just look at the pillow if we can  
7 where this shows the back side of the pillow as it lay  
8 on the bed.

9 Now you can take a closer look at the pillow  
10 itself. This is number 1104 and this is the side of  
11 the pillow that's facing up as we viewed it across her  
12 body. This was the radiating stains that were coming  
13 across the bottom or the left-hand side in a soaking  
14 stain here, and you can see some other impact spatter.  
15 It's clear that this pillow was in that position when  
16 she was being bludgeoned because these stains come on  
17 top of it.

18 These two stains, they look like they are two,  
19 this is after the pillow has been removed and pulled  
20 apart, you can see that that was folded in here and  
21 these were once touching. It's hard to see but again  
22 on 302 that's the area, you can't see it from this  
23 projector. I'm sorry. But it is right in this area  
24 where those two folds were right here. That then came

1 side that radiate up from her beating.

2 Q. Would you say, Mr. Epstein, that the position  
3 of that pillow and given the spatter that's on the  
4 pillow, was that pillow in that position during the  
5 course of the attack?

6 A. I believe it was in that position at the end of  
7 the attack, when she was being bludgeoned in that  
8 position. It probably wasn't there initially because  
9 there is some other stains that are found on the flip  
10 side, if you will, the bottom side of this pillow.

11 Q. But when the attack concluded, this is the  
12 position that that pillow would have been based on the  
13 fact that there was spatter on there; is that right?

14 A. Yes, a spatter on this fold area as well.  
15 That's where it appears to be, it could have slightly  
16 been moved a little, but not significant. It was in  
17 that position.

18 Q. Now let's look at the other side.

19 A. The other side of the pillow, 1105, you can see  
20 this is the other side of the pillow. It has some  
21 spatter on it as well.

22 Q. What does that tell you?

23 A. That means I believe that surface was available  
24 to receive some impact as well. It could have been

1 part of the attack and then subsequently put down into  
2 that position. There is also -- you can see a heavy  
3 blood soaking area, two areas here, and this is a  
4 contact stain, meaning just that, the pillow came in  
5 contact with a large amount of blood, either on the  
6 surface, on her face, to soak into that pillow.  
7 Exactly how it was made, I can't determine.

8 Now there has been some attention over the  
9 years to an apparent mark in that large soaking stain.  
10 Do you see this large soaking stain here? There is an  
11 apparent mark that you can sort of see here. I sort  
12 of call it almost like a horseshoe appearance. Here  
13 and here. There was a lot of time and energy spent on  
14 evaluating how and what made that or could we tell  
15 exactly what made that apparent mark.

16 Q. What can you say about that?

17 A. I can say this: That this apparent mark, and I  
18 will show you a close-up here in a second.

19 Q. What number?

20 A. This number is 82. We are talking about this  
21 outline here and here. In my opinion is made by a  
22 folding action. It looks like an exact -- if you look  
23 at the outline, the symmetry on the other side is  
24 exactly the same. There is an apparent folding in

1 type of blotting action. Exactly how long it would  
2 take to stand or how that was actually produced, I do  
3 not know.

4 I do not believe that this was made by an  
5 instrument or an item coming in contact for two main  
6 reasons. One is what I just said, the symmetry, and  
7 the other is this is totally within the blood stain.  
8 If you would have something that was bloody and came  
9 down on that item, it would tend to put the mark  
10 outside the edges of the large source. Although I  
11 can't establish exactly how this was made, it -- from  
12 my experience it appears to have been made by some  
13 folding action and then deposited down, whether it  
14 contacted the face or some other bloody pool and then  
15 subsequently folded as well. On many blood stains you  
16 cannot absolutely determine what caused them.

17 In our workshops, because of this case we --  
18 before students come to any conclusion whether a knife  
19 made a certain blood mark or some tool, you must be  
20 able to reproduce that stain. We are not in a  
21 guessing game here. We don't want to imply to you or  
22 to anybody else that a certain instrument made this  
23 mark. That isn't what you want. If in fact you  
24 believe it was made by a certain instrument, you

1 mark.

2 Q. Is there anything else that you can say  
3 about -- from your perspective as a blood stain  
4 pattern analyst about the pillow?

5 A. No.

6 Q. Now I want to call your attention to a blood  
7 stain on the edge of the bed. Can we talk about that  
8 for a minute?

9 A. This is number 301. I believe what you are  
10 referring to, and Dr. Kirk saw this in January, was  
11 this stain on the edge of the bed, of the corner edge  
12 of the mattress, and of course I can't examine that  
13 now. It's not in existence. So I have to rely on  
14 this photograph and the observations of other people.

15 But this photograph indicates to me, and it was  
16 described by Dr. Kirk as a -- he said hemolyzed, but  
17 it is a diluted, it is a diluted stain. It isn't like  
18 all the other blood that was here. It was blood that  
19 had -- that some liquid had been deposited on and then  
20 it diffused out. That's exactly what this looks like.  
21 It is blood that has gone out to the edges and is  
22 diffuse. This was consistent with a wet object coming  
23 in contact with blood that was already there. That's  
24 really the observation that he made.

1 found on his left knee about six inches by six inches  
2 and six inches by four inches and it is 18 inches up  
3 from the floor. Mary Cowan had measured on his -- on  
4 her knee, his knee, and this is the same distance as  
5 found on the bed, and this would be consistent with  
6 him leaning against this bed area with a wet knee  
7 after he allegedly was down at the lake.

8 Q. Now let's talk about other areas of blood in  
9 this case. Are you aware of stains that were  
10 deposited throughout the house?

11 A. Yes.

12 Q. And tell us what you have been able to  
13 determine about the number of stains and where they  
14 were located.

15 A. Yes. It was clear that there was a lot of  
16 effort put into the evaluation of blood stains at the  
17 crime scene. Although it wasn't right away, Mary  
18 Cowan went to the crime scene on July 11th and Henry  
19 Donnybrooks from the police department later in the  
20 month, I think the 22nd or 23rd, and then many, some  
21 other days after that.

22 They looked for, in the stairways, coming from  
23 the bedroom down and from the landing down to the  
24 basement they looked for blood stains and they found

1 with the facts and circumstances of this case, what do  
2 you know?

3 A. What is significant --

4 MR. DEVER: I'm going to  
5 object, Your Honor.

6 THE COURT: I'm sorry, I was  
7 coughing and I guess I'm going to have to hear  
8 that question again.

9 Q. The question was, you have read the testimony  
10 of Dr. Sheppard; is that right?

11 A. Yes.

12 Q. And you know about what he described concerning  
13 the events that night?

14 A. Yes.

15 Q. And based on what you know about what he  
16 described about the events that night, can you explain  
17 how it is that that stain got there on the bed?

18 MR. DEVER: Objection.

19 THE COURT: Overruled. If  
20 you can. You will have a chance to cross  
21 examine him on that.

22 A. Yes. I believe this is consistent with, as I  
23 said, a wet object coming in contact with the blood on  
24 the bed. This would be consistent with what was found

1 room and found them. They found stains in the --  
2 going out to the porch. They found stains in many  
3 areas of the house. Over 60 blood stains.

4 Q. Can you show through the photographs, give the  
5 jury an idea of where the stains were located?

6 A. Yes. If I can just add one thing. These  
7 stains, they did what we call a presumptive test,  
8 which is used today. They used a chemical test, a  
9 number of them, one called the benzidine test, the  
10 other leucomalachite green, another one  
11 phenylethylene. All these are chemicals that when in  
12 the presence of blood they will turn a color.

13 But it is any blood will turn colors. By  
14 positive you are just finding blood. It could be cow  
15 blood, cat blood, human blood. We don't know. These  
16 are the stains that they described as finding and they  
17 circled them with chalk to locate them.

18 This is a photograph looking up from the  
19 landing on the first floor up towards the second  
20 floor. This is 306. Just to give you an idea of the  
21 stains that were found, Mary Cowan and Henry  
22 Dombrowski did a terrific job in documenting. They  
23 described exactly which stair each of these stains  
24 were found on.

1 stairways on both the flat surface and the riser  
2 surface of the stairs. And you can see here is one  
3 that is circled on the riser, this is looking up the  
4 stairs. There is another one here. This projector  
5 doesn't project well. There is another one circled  
6 here and here. It shows you these small stains, all  
7 of them maybe averaging about a quarter of an inch.  
8 At least one has a directionality coming down. You  
9 can see that tear drop.

10 This is looking -- this is number 305.  
11 Sometimes these photos will have this optical  
12 illusion, which way is going up or down, but this is,  
13 at least from there, this is stairs coming down. This  
14 is a top surface.

15 MR. DEVER: Do you have the  
16 exhibit number, please?

17 THE WITNESS: 305.

18 MR. DEVER: That's from the  
19 second to the first floor?

20 THE WITNESS: The first one?

21 MR. DEVER: The one you are  
22 looking at right now?

23 THE WITNESS: That's 305.

24 MR. DEVER: What is it a view  
25 of?

1 to the -- in the other direction into the kitchen.  
2 There was a number of stains found on the stairs, nine  
3 stains, going into the kitchen, some small stains as  
4 well that gave a positive reaction to blood.

5 As you came down these stairs and turned  
6 towards this day bed, this is 253, actually it's 3077,  
7 you have two numbers here, plaintiff's exhibit 253,  
8 you can see coming down from the stairs and then  
9 coming into the L part, what is described as a living  
10 room area, the day bed is where Dr. Sheppard said he  
11 fell asleep, and there is a number of stains they have  
12 marked here, circled with chalk and then marked about  
13 six stains that they found in the carpet. They  
14 described them, both Mary Cowan and Mr. Dombrowski,  
15 they found these using another technique called  
16 luminol, that is again a technique for blood that gave  
17 a positive reaction, they circled them but there  
18 wasn't enough to do anything more with, to confirm  
19 these stains.

20 Q. Going on, 255, further on as you turn the  
21 corner, this right here where this chair is is where  
22 the day bed, you can see part of the day bed right in  
23 this corner. As you turn into the living room they  
24 found a significant number of other stains, nine or  
25 ten other stains that have the appearance of a trail.

1 THE WITNESS: This is a view of  
2 the stairs coming down from the second floor  
3 down to the first floor. Like I said, the  
4 photo is showing circled stains that are found  
5 both on the flat surface and the vertical  
6 surface. As Mary Cowan documented about 25 or  
7 26 that gave a positive result on this chemical  
8 test for blood.

9 This is probably a better overall.  
10 This is number 1077 and it gives you a  
11 better -- those were close-ups. Maybe we  
12 should have shown them after this. But this  
13 shows the stairs going from -- this is the  
14 landing on the first floor and these stairs go  
15 directly upstairs and go directly into the  
16 bedroom where Marilyn Sheppard was found. So  
17 these are the stains. A number of these stains  
18 were found on these stairs.

19 Q. Can you describe what's on the lower left-hand  
20 corner there in that exhibit?

21 A. Yes. Right here is the corner of what has been  
22 described as the day bed where Dr. Sheppard indicated  
23 he fell asleep and was on this day bed. There are  
24 stairs that come down into the living room toward the  
25 day bed and there are a couple of stairs that go down

1 I don't know what we can say about that but we will  
2 talk about it.

3 MR. MASON: What exhibit is  
4 this?

5 A. 255. This is the door then that goes out  
6 toward the porch and then the lake.

7 This is 1087. Showing again close-up of some  
8 other stains along that same path that were near that  
9 dresser that were positive for blood.

10 309. This is to show you that dresser, the  
11 stains that were there and the door that goes out to  
12 the porch area because right down in the wood area of  
13 the porch on 254 you see some circled blood stains as  
14 well, what was identified as blood.

15 MR. MASON: What exhibit is  
16 that?

17 MR. CARR: That's 254.  
18 A. 311 shows -- this is the living room now going  
19 all the way through the living room and turning  
20 towards the other side where the office of Dr.  
21 Sheppard was. Originally there was a medical bag that  
22 was found tipped over but later they obviously  
23 searched for blood and they found these five stains  
24 and actually a stain over on the woodwork that was  
25 positive for blood.

1 Inside the office they searched for blood and  
2 312 they found there was a chair that was sitting  
3 here, but on the mat that protects for underneath the  
4 chair they found those five stains that were positive  
5 for blood.

6 They came back to the landing and opened, there  
7 are stairs going down to the basement, this is 313,  
8 they searched and observed a number of blood stains  
9 going down on the stairs going down into the basement  
10 and they circled those stains.

11 As I mentioned to you, there was a landing that  
12 if you went one way it went into the living room, if  
13 you went the other way it went into the kitchen. On  
14 250, here are some examiners pointing to some stains  
15 that are observed on the risers and into the surfaces  
16 of the stairs going the other way into the kitchen.

17 Q. Mr. Epstein, I want to ask you a question just  
18 so the jury has a frame of reference. That's the  
19 landing over here that ends from the stairs going up  
20 to the second floor; is that right?

21 A. Yes.

22 Q. And on the other side are the steps going into  
23 that area where the day bed is?

24 A. Yes.

25 MR. MASON: Which exhibit is

1 Q. And can you identify which ones those were?

2 A. Yes. In general terms there were -- two of the  
3 stains coming from the second floor on the stairs to  
4 the landing were taken and removed and determined to  
5 be human blood. Two of the stains that went from the  
6 landing on the stairs down to the basement were  
7 determined to be human blood. And one stain between  
8 the landing and the I believe the living room was  
9 determined to be human blood. There was one stain  
10 towards the kitchen that was determined to be non  
11 human blood. No other stains were tested to determine  
12 whether they were human blood or not.

13 Q. Did these stains have to be removed and taken  
14 to a laboratory?

15 A. Yes, they were removed either by Mary Cowan or  
16 Mr. Dombrowski and taken back to the laboratory for  
17 examination.

18 Q. Now typically in the work that you do in blood  
19 stain pattern, when you are faced with what appears to  
20 be an apparent trail of blood of this magnitude, in  
21 order to determine the origin and meaning of that  
22 trail, what would you need to do?

23 A. You would need to take a representative sample  
24 of this apparent trail or any stains you thought were  
25 unusual and determine if it's human and then to

1 this?

2 THE COURT: 250.

3 A. Yes. When you come down from the downstairs  
4 you can go into the living room or into the kitchen.

5 Q. Okay. Is that it for the blood trail?

6 A. Yes.

7 Q. You may want to take a seat for a second and I  
8 will ask you a few questions.

9 A. That's fine.

10 Q. Now you indicated that there were at least 60  
11 stains that you described throughout that house; is  
12 that right?

13 A. Yes.

14 Q. And Mary Cowan and Henry Dombrowski formed what  
15 you call some presumptive tests to determine the  
16 presence of blood?

17 A. Yes, they did.

18 Q. Do you know whether or not any of these stains  
19 were actually tested and identified as human blood?

20 A. Yes.

21 Q. And out of the approximate 60 stains, how many  
22 were tested for human blood?

23 A. Actually there was five that were tested and  
24 determined to be human blood and one was tested and  
25 determined not to be human blood.

1 determine, as much as possible, with respect to who it  
2 came from, namely blood grouping or DNA is what we  
3 would do today. So you need -- you cannot say  
4 anything without knowing if it is human blood or whose  
5 blood it is.

6 Q. In this case could you determine whether or not  
7 the trail was produced by anything connected to the  
8 crime scene?

9 MR. DEVER: I'm going to  
10 object, Your Honor.

11 THE COURT: Overruled.

12 A. From what I just stated, without determining  
13 these stains that are in that home, you can't  
14 determine if they are human blood, I can't determine  
15 whether they were coming from a specific person or  
16 not. So I cannot establish exactly how these or when  
17 they were deposited in these areas.

18 Q. You mentioned the notion of blood grouping.  
19 Tell the jury what blood grouping is.

20 A. Well, in the 1950s we couldn't do as much as we  
21 can do today with blood. However, we could do, and I  
22 performed in the '60s, we can perform ABO blood  
23 grouping, the standard blood group that people are  
24 aware of and there was some grouping being done in the  
25 MN blood group system, and some in the RH system which



1 we have heard about. The techniques were not as  
2 sensitive but they still could be done at that time on  
3 blood stains that were found.

4 Q. Now with the five stains that were removed to  
5 the lab, two in the basement stairs, two between the  
6 first and second floor and one on the landing going  
7 from the landing to the kitchen, are you aware if any  
8 of those stains were subjected to the ABO grouping  
9 system in connection with this investigation?

10 A. They were not grouped. Mary Cowan indicates in  
11 her -- at least in her testimony, I think it is in her  
12 report as well, that in her opinion there was not  
13 enough material there to give satisfactory groupings  
14 results.

15 Q. Based on the description of the stains that you  
16 saw in Mary Cowan's report and the photographs, and  
17 your knowledge of this technology that existed, would  
18 you have attempted to do an ABO testing?

19 A. Yes, I would have attempted to do the grouping  
20 because it -- it looked like at least a number of  
21 those, probably a half a dozen of the stains were  
22 large enough to at least attempt. Whether they would  
23 have gotten results we are not sure, but without  
24 attempting it we surely have no results now. So I  
25 would have attempted blood grouping on a number of

1 A. Well I have already testified that just the  
2 appearance of it does look like a trail, but the  
3 significance of that without knowing in fact that it  
4 is human blood, it well could have -- we don't know  
5 what the significance is, but it appears to be a  
6 trail.

7 Q. And if this is a trail, do you have an opinion  
8 as to whether that trail could have been caused by a  
9 dripping weapon?

10 A. If all the stains that we have seen were from a  
11 human of the same blood group, if this all came from  
12 one person, then what your question is could this have  
13 come from a weapon that was used to murder Marilyn  
14 Sheppard dripping all these stains down the stairs  
15 around to these different areas, my opinion is that  
16 would not be possible with any common weapon that you  
17 would use. We have done many tests, Dr. Kirk  
18 performed some, I have and many others, taking an  
19 actual weapon and dipping it into blood and getting a  
20 maximum amount of blood and walking and you will get  
21 15, 20 drops and then there is no blood to replenish  
22 it. It's almost like if I put my finger in this water  
23 and lift it out, you will get just a few drops. There  
24 are maybe four drops and it's going to stop because  
25 there is nothing to replenish that source.

1 those stains.

2 Q. What potential information, valuable  
3 information could have been obtained from the process  
4 of doing the blood grouping of those stains?

5 A. Assuming now that the stain, these five stains,  
6 but other stains were human, which we can't -- if they  
7 are first determined to be human, if we found out that  
8 this blood was of the blood group of Marilyn Sheppard,  
9 then we can assign this came from her, whether it was  
10 associated with the murder or not, we don't know. If  
11 it came from Sam Sheppard, Dr. Sam Sheppard, then we  
12 could assume that he potentially was bleeding in this  
13 home. If it came from a completely different person,  
14 then it would indicate that this blood came from  
15 another person bleeding in this home. And that's  
16 where it is of most useful and is used today all the  
17 time is when there is a foreign blood that we can  
18 determine came from someone other than the victim.

19 Q. In your experience have you seen trails similar  
20 to this leaving a murder room or a crime scene?

21 MR. DEVER: I'm going to  
22 object, Your Honor.

23 THE COURT: Sustained.

24 Q. Did this look like a trail, at least apparently  
25 look like a trail to you of blood?

1 So if there is blood on a weapon and you start  
2 walking with it, blood will come off of it and then it  
3 will stop. You will never get the number of stains  
4 that you will need in that trail, and let me assure  
5 you this is only assuming that all this was coming  
6 from one source, which we don't know.

7 Q. If this, the size and number of the spots that  
8 you saw throughout that house, if it's connected to  
9 the crime scene what is the most likely source of that  
10 blood?

11 A. Well if all these stains were associated with  
12 this murder --

13 MR. DEVER: I'm going to  
14 object to that question.

15 THE COURT: You object to the  
16 question?

17 MR. DEVER: Yes.

18 THE COURT: Overruled.

19 A. If all these stains were associated with this  
20 murder, to get that number of stains there would have  
21 to be a replenishing supply of blood and this would be  
22 consistent with someone being cut and dripping blood.  
23 I must say that the size of some of these stains  
24 aren't the large stains that we see and so to produce  
25 those size stains there would have to be some swinging

1 action or blood hitting some other objects while the  
2 person was walking.

3 But this only assumes, and I don't want to  
4 mislead the jury, that this is blood that was  
5 determined to come from one person and we don't know  
6 that in this case at all. Many of these stains in  
7 this house could have nothing to do with this murder,  
8 absolutely nothing. They could have been there from  
9 before or whenever.

10 Q. And if this was a trail, what would be the more  
11 likely source of that trail?

12 MR. DEVER: Objection, Your  
13 Honor.

14 THE COURT: Overruled.

15 A. As I indicated, the active bleeding of a person  
16 if it all came from one source.

17 Q. Have you done experiments with the nature of  
18 active bleeding wounds leaving trails?

19 A. Yes.

20 Q. And have you just described how that works?

21 A. Yes, in workshops we have actually reproduced a  
22 lot of the experiments that Dr. Kirk did. When he  
23 came after the first trial he was asked about this  
24 question, could you leave a blood trail from a weapon

1 the next day. And she found one diffuse stain in the  
2 knee area that was about, like I said, six inches long  
3 and I believe it's four inches by six inches. Diffuse  
4 meaning spread out. It wasn't a solid stain in the  
5 left knee area.

6 She described many other stains that were on  
7 the clothing, the color and the shape and some of them  
8 were blue and some of them were tan and none of them  
9 gave a reaction for blood until she sprayed the pants  
10 with luminol, which is one of these tests for blood,  
11 and she found in different areas she describes them  
12 and she makes a diagram of some of the areas where  
13 there was a positive reaction up in the pockets side  
14 areas. But she tries to confirm this with other tests  
15 and they are all negative. So she can't confirm that.  
16 And when questioned about that as we would be  
17 questioned today, if you get a positive without a  
18 confirmation, you can just say that, you can say I  
19 can't confirm it, I can't tell if that's blood or not  
20 blood.

21 There was no pattern of blood found on the  
22 trousers at all of any other blood. There has been no  
23 other blood found.

24 Q. And what about the belt?

1 two where if you put blood, a lot of blood on  
2 clothing, depending on what fabric, if it's cotton it  
3 would just be absorbed, if it is some synthetics you  
4 will get some dripping off right away but then only a  
5 few stains, seven or eight stains and it won't  
6 continue to drip. If you walked in blood you wouldn't  
7 get drops of blood, you would get these smudges or  
8 bloody shoe print type of impressions. We have done  
9 further experiments then to demonstrate if you do have  
10 an active bleeding source where you will drip blood  
11 until that bloody nose or bloody finger stops  
12 bleeding.

13 Q. Now let's talk about Dr. Sheppard's clothing  
14 and the significance of the clothing in this case as  
15 far as blood stain pattern.

16 Do you want to resume your position here?

17 A. Yes.

18 MR. CARR: This is  
19 plaintiff's exhibit 315.

20 A. There has only been furnished to me, and I  
21 don't know of any other photographs, the one  
22 photograph of Dr. Sheppard's trousers and this is it.  
23 What has been described, there was a thorough  
24 examination of this pair of pants by Mary Cowan and it

1 of shoes and socks that Dr. Sheppard was wearing and  
2 her notes indicate that no blood was found on those  
3 items.

4 Q. What is the significance of the lack of blood  
5 on those items and on the pants?

6 A. It is very significant. I mean, from the room  
7 that Marilyn Sheppard was murdered in, the blood  
8 spatter that was present, the perpetrator would have  
9 had a lot of blood on their full surface down at least  
10 to the knees if not further, from other blood in that  
11 room and the lack of blood on his, all his clothing  
12 indicates that he was not there when that blood was  
13 being spattered in that room. There is no blood found  
14 on the leather belt and on the leather shoes which is  
15 very tenacious, will hold blood in its crevices and is  
16 very difficult to wash out.

17 Q. Does that allow you to offer an opinion as to  
18 whether Dr. Sheppard was present in the murder room  
19 during the time that blood was being spattered?

20 MR. DEVER: Objection.

21 THE COURT: Overruled.

22 A. Yes. I actually just gave that opinion. That  
23 in my opinion these pants of Dr. Sheppard were not in  
24 the room. I would have expected to see a lot of blood

1 are a few stained in the knee which is very consistent  
2 with him leaning against that bed after his pants were  
3 wet. But it is not a spatter like I showed you the  
4 impact type spatters that were present.

5 Q. Now let's talk about the watch. Were you aware  
6 that a watch, blood was found on it in the green bag  
7 along with some other items on the bank going down  
8 towards the beach?

9 MR. DEVER: Objection.

10 THE COURT: Where it was  
11 found or whether he was aware?

12 MR. DEVER: Who is testifying  
13 here?

14 THE COURT: Overruled.

15 A. Yes.

16 Q. Do you know whether that watch was taken into  
17 possession of the authorities and examined at the  
18 time?

19 A. Yes. There was two watches that were found in  
20 this green bag that were said to have been found in a  
21 green bag and they were both submitted to the  
22 laboratory.

23 Q. Now do you know what was done in terms of the  
24 watch as far as from a criminalistic standpoint back

1 smear of blood on the crystal and deposits of blood in  
2 the top link area and blood down on the band area. I  
3 think if it is all right I will hold this up for the  
4 jury. May I do that?

5 Q. Sure. Go on and show it to the jury.

6 A. We are going to need to pass this around so all  
7 the jurors can see. I think we will need to maybe  
8 pass this photo around.

9 Q. Yes.

10 A. But I'm pointing towards right here you can see  
11 like a little air bubble that is also some moisture  
12 that's on the inside of the crystal and it's clear and  
13 everyone now believes that that was on or in the watch  
14 before this July 4th incident.

15 There is testimony that there was a number of  
16 reasons why that could be. Dr. Sheppard was in,  
17 pushing a boat and some other -- was exposed to water.  
18 It has no significance, I believe, in this case at  
19 all. It was there before.

20 What does become significant is on the watch  
21 there are a number, especially down in this lower area  
22 and up on top, some blood smears, and on the link up  
23 here if you look when you get it, heavy deposits of  
24 blood, a lot of blood on the links, smeared contact

1 A. Yes, I do.

2 Q. Tell us about that.

3 A. Mary Cowan was asked to make a thorough exam,  
4 I'm sure, and there was an initial question that came  
5 up as they saw on Dr. Sam Sheppard's watch some  
6 moisture underneath the crystal and there was a blood  
7 smear and blood contact stains on the watch and so a  
8 question came up of how can that be if he was down,  
9 how can that be if he was down at the water, wouldn't  
10 if you were in the water to get the water underneath  
11 the crystal, wouldn't that wash off the blood stain,  
12 and in fact that's exactly what she did determine and  
13 Dr. Kirk, too, that this -- let me show you 317, this  
14 was the first photograph that I received in this case  
15 and in this area right here there is some apparent  
16 moisture and this is a very poor photograph. I  
17 couldn't do much with this myself.

18 Later I received, which I think I will show it,  
19 it is easier to see, number 44. I found out that this  
20 was actually a color photograph that was printed in  
21 black and white. But here is a better photograph that  
22 I received. That's better. I will hold it up to the  
23 jury in a second.

24 The water is underneath where the three would

1 There has been a lot of comment about some  
2 small stains that are observed, especially between the  
3 11 and 12:00 area. And if you look very closely it  
4 looks like there is a two or three, maybe four stains  
5 that are these very small millimeter size stains.

6 How were they produced? It is clear to me that  
7 these are all consistent with, they are associated  
8 with the smears, they were produced when this smearing  
9 action took place. Just like I showed you the hairs,  
10 you can get some small stains being produced there.

11 These were not produced by being near an  
12 impact, at least there is not enough information here,  
13 you would need a whole pattern, you would need  
14 spatters all over the watch and they simply aren't  
15 there. So it is just from the removal of the watch  
16 caused some of these stains. I think you need to look  
17 at it.

18 Q. You can pass that around to the jury.

19 THE COURT: May I have  
20 counsel approach for a moment while they are  
21 looking?

22 (Thereupon, a discussion was had  
23 between Court and counsel at sidebar.)

24 THE COURT: Mr. Gilbert, you

1 Q. Do you have an opinion as to whether or not a  
2 trained forensic blood stain pattern analyst, what you  
3 could say as to the origin of any spots found on that  
4 watch?

5 A. Yes.

6 Q. And what is your opinion?

7 A. My opinion, as I mentioned, is that the stains  
8 that I see with this photograph that was taken, this  
9 photograph was taken in 1954, the day after, July 5th,  
10 from the examination of that photograph I believe it  
11 is all consistent with contact staining, meaning a  
12 bloody source coming in contact within that actual  
13 watch. That can be a number of things. One likely  
14 one is the actual removal of fingers, bloody fingers,  
15 but could also be other material that came in contact  
16 or hair from Marilyn Sheppard or some other contact  
17 that made those stains.

18 Q. In your opinion, it is not flying blood?

19 A. I believe there is not, this was not made by  
20 impact to -- in particular if you were referring to  
21 bludgeoning of Marilyn Sheppard flying onto that  
22 watch. There is not a pattern there. There is only  
23 two or three small stains that are observed on the  
24 crystal or circumference of the area in these

1 population would the M factor include, do you know?

2 A. Yes. There are three blood groups, main blood  
3 groups and M -- there is M, there is N, and there is  
4 MN. So the M factor is found in two of those three. M  
5 blood group general population 30 percent of the  
6 population, MN, 50 percent of the population, and N is  
7 20 percent. So 80 percent of the population would  
8 have this M factor in its blood group.

9 Q. Now did you do any tests of your own to try to  
10 replicate from smearing whether or not in that process  
11 you could get spots on a watch as appears in this  
12 exhibit, the '54 watch?

13 A. Yes.

14 Q. What did you do?

15 A. Because there is some question from some other  
16 experts, and I'm sure you will hear some other  
17 comments that there was a question whether these  
18 stains could have come from impact as opposed to just  
19 being contact, I wanted to, and my colleague and I  
20 want to demonstrate that this is easily produced and  
21 we did an experiment to show that. And we did that by  
22 I put on a watch that I took a photograph of, my  
23 colleague put some blood on his fingers and he removed  
24 the watch and put it down and after the stain has

1 take a better look at it. Maybe more could be done.

2 Q. Now did you know whether any attempt was made  
3 to do grouping tests on the blood on that watch to  
4 determine possible origin of the blood found on that  
5 watch?

6 A. Yes, there was an attempt.

7 Q. And what can you tell us about that?

8 A. Mary Cowan swabbed blood off and determined  
9 that it was in fact human blood. There was a test to  
10 do that first called the precipitant test, and then  
11 she attempted to do ABO blood grouping and her  
12 attempts didn't give what she thought were reliable  
13 results and which is the right approach. She called  
14 that inconclusive. She wasn't sure what the ABO blood  
15 group was.

16 Marilyn Sheppard was blood group O. She  
17 couldn't determine on that watch. She then went on,  
18 she and a Dr. Marsters later on also took blood from  
19 the watch and determined the status of the M factor in  
20 the MN group and determined that there was M factor  
21 present and that was the same factor, M, that Marilyn  
22 Sheppard had, although it is common, but that's  
23 consistent then with Marilyn Sheppard's blood and that  
24 was the opinion that she gave at that time.

1 photographed them and show the very small stains that  
2 can be produced in that method.

3 We did the experiment four other times. And  
4 one other time it produced some small stains and other  
5 times it did not. So it doesn't do that all the time.  
6 But it clearly can and is a likely source of small  
7 stain production when any hard surface is contacted.

8 Q. Now would you come down and we will look at  
9 some other photographs here.

10 Now getting back to the position of her body,  
11 can we take a look at some other blood on her body and  
12 see what we can talk about?

13 A. Okay.

14 Q. I'm sorry, before we get into that --

15 MR. DEVER: Excuse me, can I  
16 see those? May we approach the bench, Your  
17 Honor?

18 THE COURT: Yes.

19 (Thereupon, a discussion was had  
20 between Court and counsel at sidebar.)

21 Q. Mr. Epstein, would you come down here?

22 MR. CARR: This is exhibit  
23 1109.

24 Q. Mr. Epstein, would you look at that photograph.

1 and on her right arm. Is there anything that you can  
2 tell us about those stains?

3 A. Yes. I think what you are referring to, we  
4 actually have another shot that we will show in a  
5 second, but there are some stains on her abdomen side  
6 here, right under her breast, and there is a large  
7 deposit of blood on her right arm and a possible drip  
8 of blood on her right arm. There is also some blood  
9 on her left wrist.

10 I would like to comment on this stain, this  
11 large deposit on her right arm. I indicated in my  
12 report to you that there is a large stain that Dr.  
13 Kirk saw and it was removed from the door, the closet  
14 door. Now at a crime scene, I indicated, because we  
15 don't have a lot of photographs, we don't have the  
16 items, but we are looking for anything that's unusual,  
17 and the other stains may have been taken at that time  
18 that could have been helpful, but the people at that  
19 time, because of training, didn't appreciate that.

20 This is one of those types of stains. It looks  
21 to me, we can't tell for sure but there is a large  
22 deposit here of blood that could have come from  
23 Marilyn Sheppard, but this apparent drop area, I would  
24 have removed that stain to do further grouping. Could  
25 that have been from a different source, the

1 side.

2 Q. I wanted to ask -- you can go ahead and take a  
3 seat. Were you subsequently provided with photographs  
4 that were taken of Dr. Sam Sheppard's watch in 1966?

5 A. Yes.

6 Q. And what were you able to determine about the  
7 condition of that watch as compared to the original  
8 photographs of the watch in 1954?

9 A. In comparison there was a -- it wasn't the same  
10 watch with respect to blood on the surface. It is  
11 clear, and I have mentioned and I have documented the  
12 number of times Mary Cowan and Dr. Marsters, they  
13 removed blood to do these tests for blood grouping and  
14 for human blood.

15 The photographs that were taken in 1966 are  
16 completely different. There is no blood smears on the  
17 face and crystal or blood deposits or heavy blood  
18 deposits on the links, they are better seen in the  
19 1954. There is a series of pictures that were taken  
20 of all the links that were taken in 1966. In my  
21 opinion there is -- you cannot make any valid  
22 interpretation of any of these mechanisms that cause  
23 staining because the blood that was originally there  
24 is not there any more. A lot of it is all smeared and  
25 wiped.

1 perpetrator bleeding and dropping down there? It's  
2 just what I want to point this to the jury is there is  
3 some stains that could have been obtained that may  
4 have given more information. At that time it was not  
5 commonly known, though, so I only point it out as  
6 other things that could have been done.

7 On 1108 is a close-up of this area on her side  
8 and abdomen. You can see that there is smears and  
9 some smaller deposits on her side and abdomen. And  
10 how did these get there? If this is some sort of  
11 contact it could be blood -- she has blood on her  
12 wrist, a heavy deposit and blood on her hands. This  
13 well could have been her contacting herself.

14 Could it be the perpetrator contacting or some  
15 other material, we don't have a crystal ball, we can't  
16 tell, but it is surely some sort of contact of a  
17 bloody source onto her side and abdomen. There is a  
18 comment, and I can't tell, this is the only photo, was  
19 there any blood on her breast? That's the limitation  
20 of a photograph. You can see some darkening here but  
21 you don't know if that's blood at all. It could be  
22 just the photograph and the way it was taken. So you  
23 have to be very cautious about interpreting these  
24 stains and how they were made. All you can see for  
25 sure is it was a bloody source made contact with her

1 Q. Now showing you what has been marked as -- what  
2 has been called 173, were you at the coroner's able to  
3 see a digitalized recreation of the watch band? It  
4 was a huge photograph.

5 A. Yes.

6 Q. That was put together and I believe the jury  
7 saw it in opening statement.

8 Showing you a section of that, is that part of  
9 what you saw at the coroner's office?

10 A. Yes. Number 173 is a photograph of one section  
11 of the watch band taken in 1966. It was part of that  
12 large display.

13 Q. Did it look like the blood had been wiped off?

14 A. Well, what is present, and of course I don't  
15 know if it is blood --

16 MR. DEVER: Objection to the  
17 form of the question.

18 THE COURT: Sustained.

19 Q. Well what were you able to observe in your  
20 comparing the photographs?

21 A. In this photograph --

22 THE COURT: Where is the big  
23 exhibit? Do you want to use it?

24 MR. GILBERT: If they would let  
25 me use it.

THE COURT: If you would let him use it.

MR. GILBERT: They paid for it.

THE COURT: It is all right with the state, Mr. Gilbert, I think it is sitting over here. Let's reference that.

MR. GILBERT: This is state's exhibit 126.

THE COURT: All right. Proceed.

Q. Mr. Epstein, is this the watch that you saw?

A. Yes. This is the photograph, it is a composite of all the links that were taken by a photographer and put together and I saw that at the coroner's office.

Q. And this is a composite done of photographs from 1966; is that right?

A. Yes. Before the 1966 trial. I don't know exactly when the photographs were taken but it was for that.

Q. And you were aware that Mary Cowan and maybe others had did work on the watch for blood grouping; is that right?

A. Yes.

Q. Now is there anything that you could --

removed. I don't see how you could use this in any other way than to show the -- a good picture of the watch.

Q. Do you notice any damage to the watch here?

A. Well, I don't know if there is damage. There is a separation over here between 29 and 30 and there is some separation between five and seven, but I have no idea if that's damage or not.

Q. As a criminalist are you in a position to offer any observations and opinions as to what more could have been done with the trace evidence in this case?

A. Yes.

Q. And can you tell the ladies and gentlemen of the jury what your opinion is on that?

A. I believe in a couple of areas more could have been done. In particular there was a number of items that were picked up on the floor area of the bedroom. There was a small piece of leather that was found, there was some apparent fingernail polish that turned out not to be fingernail polish but other red paint type of material that could have been further looked at to determine if they were deposited there from some other person besides Marilyn or Sam Sheppard.

But the most important area I think that could

watch?

A. Well I don't know if there is any blood on this watch. Let me explain why in my opinion this photograph representing the watch in 1966 shouldn't be used at all for blood spatter interpretation. If you simply look at the 1954 photograph, which I have here number 44 and the jury saw, they saw blood, I'll put this in the same relative position, if you can hold that. There was blood smears on the lower portion of the crystal. There is none here. There are these contact, heavy contact blood on this area here, I don't know what you call that on a watch, and there were some smaller stains that were on the rim. None of that is present in this.

There is heavy blood staining, you can see smears, contact smears on the links. All these first five links and there are none, these stains aren't present in this photograph and it appears that there is some description of some small reddish stains in the grooves that are hard to see even for the jury at that distance. These grooves that well could be there, the residue of removing the blood for testing.

But to interpret these small stains that are inside these grooves came from some impact way back in

sand that was found on and in Dr. Sheppard's clothing.

Q. Why is that significant?

A. Well, there is questions here of course whether Dr. Sheppard, he related a story of what happened. Is that true or not and did he perpetrate this crime and go out into the lake and wash up and then just make this whole story up and come upstairs and proceed, or was he down at the beach overtaken by a perpetrator? Which he says he was then, and I think the sand helps potentially to explain that and maybe further things could have been done.

Q. Where was sand found in the criminalistic investigation of this case?

A. Mary Cowan, as I said, did a thorough examination in her report. She finds sand, a large amount of sand in the cuffs of Dr. Sheppard's pants as well as she finds sand in all the other four pockets, the front, right and left and the rear right and left. And there is sand also demonstrated at trial when she is examining the shoes, there is a lot of sand in his shoes.

Now this to me may have been very significant. How did this sand get into the pants in all these areas. Is this consistent or more consistent with him

1 on the beach or him doing some other action. It seems  
2 to me this is consistent with him being on the beach  
3 and sand being deposited in these areas.

4 Q. Now, Mr. Epstein, there have been anti-Sheppard  
5 people who have said that he must have washed off his  
6 clothing.

7 MR. DEVER: Objection.

8 THE COURT: Well he is  
9 framing a question but try to limit it if you  
10 can.

11 Q. There are people who have said, and I suspect  
12 the prosecution will try to say this, or the defense,  
13 that Dr. Sheppard washed off his clothing.

14 MR. DEVER: Objection.

15 THE COURT: Anticipating, if  
16 that were to be the case. Go ahead.

17 Q. What can you say about that in this case?

18 A. In this case or any case, if you have blood on  
19 clothing, you washing does a wonderful job. People  
20 throw things in the washing machine with Tide all the  
21 time and it will wash blood out.

22 In this particular case or any case can a  
23 person have blood on their pants in this situation or  
24 shoes or other items and wash that blood out? It  
25 would be very unlikely to be able to be done on

1 THE COURT: Overruled.

2 Proceed.

3 A. Yes, based on my review and evaluation of the  
4 blood stain patterns in particular, out of all these  
5 things that we have discussed there are two major  
6 things that strike me about the evaluation. First let  
7 me say I do not know, I do not know who killed Marilyn  
8 Sheppard. However, I do not believe Dr. Sam Sheppard  
9 killed --

10 MR. DEVER: Objection.

11 THE COURT: Overruled.

12 A. -- killed Marilyn Sheppard for two reasons of  
13 the blood spatter interpretation. One is from all the  
14 spatter that was in that room I would expect the  
15 perpetrator to have considerable amount of spatter on  
16 his clothing, including his belt, pants, and shoes,  
17 and his clothing did not have that.

18 The second major reason is there is this large  
19 unique blood stain that was found on the closet door  
20 that clearly was not from the beating of Marilyn  
21 Sheppard but was deposited from some other mechanism,  
22 most likely that of the perpetrator and blood grouping  
23 indicating that this is different.

24 MR. DEVER: Objection, Your  
25 Honor.

1 leather items, the belt and the shoes.

2 Mary Cowan and Dr. Kirk in particular did  
3 experiments to show that it soaks into the leather  
4 areas in particular. Many minutes of washing you  
5 still have blood there. Mary Cowan put one drop of  
6 blood on some pants and washed out with three to four  
7 minutes and there was no blood detectable.

8 Is it possible to wash out the blood? Yes, it  
9 is possible to wash out the blood. You would have to  
10 consciously have to do that. I think in this case you  
11 would have found residue especially in the leather  
12 areas of his clothing.

13 Q. Finally, Mr. Epstein, as a result of your  
14 entire review of this case, the 200 or 300 hours that  
15 you put into it, all the work that you have done, have  
16 you reached some conclusions based on reasonable  
17 scientific certainty regarding this case?

18 A. Yes.

19 Q. And what conclusions have you reached?

20 MR. DEVER: Objection.

21 THE COURT: Would you like to  
22 be -- I'll give you a sidebar. Is there some  
23 specific thing?

24 MR. DEVER: I'm making my  
25 record.

1 THE COURT: Overruled.

2 Proceed.

3 A. Those are the two major observations from the  
4 blood spatter evaluation.

5 MR. GILBERT: Thank you. I  
6 have no further questions.

7 THE COURT: Ladies and  
8 gentlemen, we will break for lunch at this  
9 point. I'm going to remind you do not discuss  
10 this case among yourselves, do not permit  
11 anyone to discuss it with you or in your  
12 presence. You are instructed not to form or  
13 express an opinion on this case until it is  
14 finally submitted to you.

15 Be ready to be called into the  
16 courtroom at 1:35.

17 (Thereupon, a luncheon recess was  
18 had.)

19 - - - -

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WEDNESDAY AFTERNOON SESSION, MARCH 1, 2000

THE COURT: Mr. Epstein, you remain under oath.

Mr. Dever, you may cross examine.

CROSS EXAMINATION OF BARTON PAUL EPSTEIN

BY MR. DEVER:

Q. Good afternoon, Mr. Epstein.

A. Yes.

Q. It is not doctor, is it?

A. No, it is not. I only received my bachelor of science degree. It is true that it is Mr. Epstein, not Dr. Epstein.

Q. You were at Berkeley in the '60s; is that right?

A. Yes, it was.

Q. That would be an interesting conversation to have with you at another time.

You were a student of Dr. Paul Kirk; is that right?

A. Yes, I was.

Q. That's when you were pursuing your bachelor of science; is that correct?

university.

Q. At that point in time the subject or the discipline of blood spatter analysis was in its infancy; is that fair to say?

A. Yes, I would say that at that time only because of Paul Kirk's work was it being studied or starting to be studied. So as far as it being known and studied by many, many people, it was in its infancy.

Q. And since that time it has become a recognized subspecialty under the area of forensic sciences, has it not?

A. I don't know if you can call it subspecialty, but, yes, there has definitely been more attention to that and people have started to use it more and study it more.

Q. And the particular science that would be required to understand this phenomenon of blood spatter pattern analysis, this is patterns, right, that we are discussing?

A. Yes, generally it is patterns, yes.

Q. That you find characteristics on a particular item, a particular pattern that you find by the way or the presence of the blood on that particular item, and you can draw certain inferences as to how it came to

A. If there is enough information there, as I mentioned before, you have to have a sufficient number of stains and their size and distribution, you can make certain interpretations.

Q. And this would require some basic understanding of basic physics, would it not?

A. Yes, generally a lot of the areas of physics and mathematics and chemistry.

Q. And also fluid dynamics would also be something that would be involved in this?

A. Probably so, yes.

Q. And the understanding of what is known as surface tension?

A. Yes.

Q. And the understanding that objects of liquid tend to cling to one another; is that correct?

A. Or they tend to form small spheres, yes.

Q. And then once these particular objects of liquid are accelerated, and I mean the term accelerated by a level of force applied to them, then they can breakdown into smaller sizes than what would normally be found in droplets; is that correct?

A. That's one mechanism to break up stains, when it is impacted it will break up into small stains.

like coughing up blood or people are injured and coughing blood or blood hitting blood. Yes, if things are broken up they will be smaller size, that's correct.

Q. So essentially it is accelerating that particular object of liquid that will necessitate it from dividing into smaller size than just a simple droplet; is that correct?

A. No, I don't know what you mean by accelerating. The stain, you mean if it is hit and it is broken up into small stains, that's --

Q. There is an amount of energy that is applied to the particular stain itself that causes it to diffuse, would that be a fair characterization?

A. It would break it up into smaller stains.

Q. In the particular subspecialty prior to the work of Dr. Kirk, people who were working in the area of dealing with blood, say for instance blood technicians and people of that type of training would have had the basic common understanding of smearing as opposed to spattering, would they not?

A. I would think, I didn't survey people back then, but in the United States blood spatter wasn't really looked at until the '50s, but I would think



1 people observe things that they would make some  
 2 conclusions with.  
 3 Q. And you would find particular types of common  
 4 characteristics from dealing with fluids such as  
 5 blood, would you not, as far as being able to  
 6 distinguish between a smear and a spatter?  
 7 A. Any time? Generally a general overall smear is  
 8 recognizable.  
 9 Q. Now you teach a course and you have identified  
 10 a workbook that you have. How long is that set of  
 11 experiments that you have in the workbook for your  
 12 course, how long does that run for a period of time?  
 13 A. How long does the course last?  
 14 Q. Yes.  
 15 A. 40 hours. About one week. It is actually a  
 16 little bit longer. As it turns out now we don't  
 17 accomplish all of the experiments there, we had to  
 18 cutout a couple, but the vast majority of the  
 19 experiments are done in one week.  
 20 Q. And during a one-week seminar then you are able  
 21 to teach people who are in the forensic fields a  
 22 little bit about blood spatter pattern analysis; is  
 23 that right?  
 24 A. Yes. The purpose is to do just that, is to  
 25 give them a recognition of what can be done for them

1 A. I'm not absolutely sure. I believe he had  
 2 contact with other peoples involved in the case and  
 3 they gave him my name and that's how I believe it.  
 4 Q. So you never found out how he came to find you;  
 5 is that correct?  
 6 A. It may have been through another colleague.  
 7 Q. And who was that other colleague?  
 8 A. I think it may have been through Dr. Peter  
 9 DeForest that may have given him my name.  
 10 Q. And Peter DeForest was also a student of  
 11 Kirk's; is that correct?  
 12 A. Yes, that's correct.  
 13 Q. You at one point in time at least had some  
 14 filming done up in Minnesota, is that correct, for the  
 15 NOVA program?  
 16 A. Yes, that's correct.  
 17 Q. And then there was some filming here on a stage  
 18 in Cleveland; is that correct?  
 19 MR. GILBERT: Objection to the  
 20 word "stage."  
 21 THE COURT: Overruled.  
 22 Q. Is that correct?  
 23 A. There was some filming here in a warehouse  
 24 where there was a duplication made or an attempt to  
 25 try to duplicate an area like the bedroom.

1 to have hands-on and sort of lead them then back to  
 2 their laboratories so they can then use this and then  
 3 perform other experiments. It does not make them an  
 4 expert.  
 5 Q. But it makes them at least to understand the  
 6 terminology, the language that's used; is that  
 7 correct?  
 8 A. Yes.  
 9 Q. And then the basic physical properties of  
 10 blood, does it not?  
 11 A. Yes, gives them a firsthand basic knowledge to  
 12 carry on with their work.  
 13 Q. Now you became involved in this case through  
 14 the NOVA program; is that correct?  
 15 A. Yes, that led to this testimony today, that's  
 16 how it began. However, as I mentioned before, I was  
 17 aware of this case before that. I mean, when I was at  
 18 the university it was mentioned and through our  
 19 workshops since 1983 for 17 years we have handed out  
 20 the affidavit of Paul Kirk. So in that respect I have  
 21 had contact with this before this NOVA project.  
 22 Q. And did Marion Marcinsky contact you in order  
 23 to participate in the NOVA program?  
 24 A. That's correct.  
 25 Q. Did you come to learn how he found you?

1 Q. And you participated in that filming, did you  
 2 not?  
 3 A. Yes.  
 4 Q. Did you have a script that you worked off of?  
 5 A. No.  
 6 Q. Was there a format as far as what you were to  
 7 do during the period of filming?  
 8 A. I don't know about format, I was asked -- my  
 9 reason for coming was to try to demonstrate and to  
 10 prepare the room that looked similar to what the  
 11 actual murder room was and then to demonstrate certain  
 12 blood spatter phenomenon.  
 13 Q. Okay. And so what you did was -- basically was  
 14 this a scientific experiment that you conducted or was  
 15 this a reenactment or was this a -- I am uncertain as  
 16 to what your role, were you as an expert or an actor?  
 17 Where did you understand this to be?  
 18 A. I surely was not an actor. It was really to  
 19 do -- as I said, it was to demonstrate what types of  
 20 actions could produce different types of spatter and  
 21 conditions. It wasn't to exactly duplicate everything  
 22 that was in that crime scene, that would be virtually  
 23 impossible to do, but it was to give the general  
 24 soaking stains and spatters that were located on  
 25 different areas. So it was to do that, demonstrate

1 that.  
 2 Q. But as far as scientific accuracy, it was not  
 3 portrayed in that way; is that correct?  
 4 A. No, it was not to be portrayed as a series of  
 5 scientific experiments that replicated exactly what  
 6 happened in that murder room, it was to demonstrate  
 7 possibilities and that's exactly what was done.  
 8 Q. The name of the segment or the name of the  
 9 program was The Killer'S Trail; is that correct?  
 10 A. I believe that's what it was named.  
 11 Q. When you came to Cleveland you had an  
 12 opportunity to meet other experts that were involved  
 13 in this particular case; is that correct?  
 14 A. Yes, a number of them came to be filmed at the  
 15 same time.  
 16 Q. Terry Gilbert was there; is that correct?  
 17 A. Yes, that's where I first met Terry Gilbert.  
 18 Q. Cynthia Cooper, the writer, was there; is that  
 19 correct?  
 20 A. Yes.  
 21 Q. Sam Reese Sheppard, did you meet him at that  
 22 time?  
 23 A. I did meet him.  
 24 Q. Did you meet an individual by the name of  
 25 Chapman, John Chapman at that time?

98

1 A. Yes, I did.  
 2 Q. Did you meet the attorney Barry Scheck?  
 3 A. Yes, I met him.  
 4 Q. And these were all -- what was your  
 5 understanding as far as their role in the particular  
 6 program?  
 7 A. My understanding was they were to contribute  
 8 their expertise in their specific areas to be filmed  
 9 telling about what those areas might be. I wasn't  
 10 sure, I hadn't known a number of these people before.  
 11 I did not know Mr. Chapman or Cynthia Cooper or Terry  
 12 Gilbert.  
 13 Q. Dr. Sobel was there, also?  
 14 A. Yes.  
 15 Q. What about Dr. Wecht, did you see him there?  
 16 A. I can't remember if I saw Dr. Wecht there.  
 17 Q. You know all of these names, you know all of  
 18 these folks, don't you?  
 19 A. Yes.  
 20 Q. What about F. Lee Bailey, was he there?  
 21 A. No, I did not meet F. Lee Bailey.  
 22 Q. And Dr. Peter DeForest, was he there?  
 23 A. No.  
 24 Q. After the filming process there was some  
 25 additional filming that was done in Boston; is that

1 correct?  
 2 A. Yes.  
 3 Q. Some interviews that were done in Boston; is  
 4 that correct?  
 5 A. Yes, it was simply to have interview questions,  
 6 yes.  
 7 Q. And who did you meet up in Boston during the  
 8 time of filming of that?  
 9 A. I am not going to remember the name of the  
 10 person. I think the firm was Powerhouse --  
 11 Q. Productions?  
 12 A. Productions. And I can't remember the name of  
 13 the person.  
 14 Q. Okay. Fair enough.  
 15 So during the course of that filming were you  
 16 depicted in a reenactment of or a demonstration of the  
 17 murder of Marilyn Sheppard? Did you reenact or  
 18 demonstrate or do some demonstration on film?  
 19 A. Yes.  
 20 Q. And the demonstration on film is that you  
 21 essentially held a flashlight in your right arm and  
 22 struck multiple blows to a mannequin lying on a bed;  
 23 is that correct?  
 24 A. Yes, that I placed blood on, yes.  
 25 Q. And the way that you handled the -- how did you

100

1 first of all come to use the flashlight as the prop to  
 2 show the object that caused these injuries to Mrs.  
 3 Sheppard?  
 4 A. Marion Marcinsky wanted me to use that as the  
 5 instrument. There evidently had been discussions over  
 6 many years that that may be a potential weapon.  
 7 Q. So that was at the suggestion of the director  
 8 that you used the flashlight?  
 9 A. Yes.  
 10 Q. So you demonstrated and you used your right  
 11 arm; is that correct?  
 12 A. Yes.  
 13 Q. And you made the motions in an up or a chopping  
 14 type motion; is that correct?  
 15 A. Yes, I believe so.  
 16 Q. As opposed to the tennis or baseball swing type  
 17 motion; is that correct?  
 18 A. Yes.  
 19 Q. And you had indicated with your right hand; is  
 20 that correct?  
 21 A. Yes.  
 22 Q. Now also you did some demonstrations with  
 23 measuring blood, how it drips through a home; is that  
 24 correct?  
 25 A. Yes. I demonstrated dropping blood, excuse me,

1 from a pipet, instead of cutting myself, dripping from  
2 an instrument that I could have continual drops as  
3 well as another time with a screwdriver.

4 Q. Now how did you come to select a screwdriver to  
5 be used as the prop for testing the dripping?

6 A. Just arbitrary. I wanted to pick an item to  
7 demonstrate what I have already testified to, that if  
8 you only had a limited amount of blood even if you dip  
9 it into a source of blood and I picked a screwdriver.

10 Q. And then you used a droplet to simulate the  
11 bleeding wound; is that correct?

12 A. Yes.

13 Q. That was what your purpose was, right?

14 A. The purpose was to show that you have a limited  
15 number of stains from blood on a weapon and more if  
16 you had a continual blood source.

17 Q. A flow of blood?

18 A. A flow to replenish, that's right. That was  
19 the whole purpose of that demonstration.

20 Q. And that's essentially what it was was a  
21 demonstration; is that right?

22 A. Yes.

23 Q. Now let's go forward to or let's go back, let's  
24 go back to 1954. You have spent about 300 hours on  
25 this case; is that correct?

1 A. I would say between all the involvement in the  
2 NOVA production, reading all the transcripts and  
3 coming here for depositions, yes.

4 Q. Do you feel that you have been provided all of  
5 the information that you need in order to justify your  
6 opinions?

7 A. Well, yes and no. Yes, I believe I have enough  
8 to justify my opinions. I still have never received  
9 or been able to -- I haven't looked at original,  
10 original photographs. I saw them for about an hour  
11 one day and that might be helpful to see more clarity,  
12 but surely the photographs I was given gave me enough  
13 to base my opinions on. You always are looking for  
14 more to examine.

15 Q. And there is more in this case, definitely.

16 The photographs that were provided to you, you  
17 were aware that the Cuyahoga County coroner had taken  
18 all of the photographs that relate to this particular  
19 case and placed them onto a CD rom; were you aware of  
20 that?

21 A. Yes, I received a number of those CD roms.

22 Q. And there was some digital enhancement of  
23 certain photographs; is that correct?

24 A. That I have never -- I saw only a reference to  
25 those enhancements. I have not seen those

1 enhancements.

2 Q. First of all let's deal with blood trail and  
3 that term, trail. You would agree first of all that  
4 if an individual is suffering from a bleeding wound,  
5 whether it be a bite, a scratch, a cut with a knife,  
6 whatever, that the common characteristics of that  
7 particular fluid, that flood, when it drips will drip  
8 normally in diameters larger than half an inch; is  
9 that correct?

10 A. Yes. Generally if they are of normal height  
11 and they fall down, as I showed the jury that first  
12 display, they are usually a half inch or so. If they  
13 fall down and hit a hard surface like wood or linoleum  
14 or like the stairs in this case, they would be a half  
15 inch or so, that's correct.

16 Q. And normally just as reason and common sense  
17 you would be able to visually view a trail that  
18 resulted from an opened cut or wound, would you not,  
19 provided that the surface in which the wound -- the  
20 blood struck was a flat surface as opposed to  
21 carpeting or as opposed to a thicker material that  
22 would absorb the blood?

23 A. If I understand the question, would you be able  
24 to visualize the stains dropping, if they are on the  
25 same surface and the person was moving at the same

1 speed, would you see a trail? You would expect to do  
2 that.

3 You can always get intervening types of things  
4 happening. A person bleeding, if it is from their  
5 hand swinging the hand, you can get more or less blood  
6 or if it hits some other surface and breaks up, it  
7 can -- that can happen as well. But if it was a  
8 continual path often at crime scenes we will see that,  
9 yes.

10 Q. When you say swinging the hand or some sort of  
11 motion like that, essentially what is occurring in  
12 that instance is the blood is being accelerated or it  
13 has become a higher velocity than just a drip; is that  
14 correct?

15 A. Yes, and it can break up as indicated.

16 Q. Because of the force that creates the energy to  
17 move that blood droplet along to whatever the target  
18 is, is then transferred onto the target by the  
19 breaking up of the spot of blood; is that correct?

20 A. Yes, when it hits the surface it can break up  
21 as well, that's correct.

22 Q. So in this particular instance you were aware  
23 that there was an attempt to either quantify, outside  
24 of the murder, we will talk about the murder room  
25 later on, but just for the trail issue, that in this

1 particular instance that was attempting to go from the  
2 staircase of the second floor down to the first floor  
3 platform, okay, and then the platform divides, one  
4 leads into the kitchen, the other leads into the  
5 living room; is that correct?

6 A. That's correct.

7 Q. And of all of those various attempts to find  
8 blood on those particular stair treads, the blood, or  
9 what was suspected to be blood, was found on the riser  
10 portion as opposed to the step portion of the stair;  
11 is that correct?

12 A. They were found on both the riser and the flat  
13 surface, half and half.

14 Q. And in addition to that, those blood droplets  
15 themselves were smaller in diameter than a quarter of  
16 an inch; is that correct?

17 A. Most of them averaged in that quarter inch,  
18 some smaller, some eighth inch, some slightly larger,  
19 but they were in that quarter inch size.

20 Q. So as far as there being a trail on the  
21 staircase based upon the size, the location, and the  
22 diameter of those particular blood droplets, you can  
23 tell us, based upon your expertise, that you cannot  
24 say that they are in fact from a dripping wound; is  
25 that correct?

1 Q. Apparently based on their tests, this luminol,  
2 you correct me if I'm wrong, okay, what this required  
3 is the luminol is sprayed onto an area of carpet in  
4 darkness -- and then darkness is applied, so usually  
5 you do this in the evening, and then a black light is  
6 put onto that particular area; is that correct?

7 A. Partially. Luminol -- you do this in dark.  
8 Luminol will react with the hemoglobin in blood and if  
9 it is in dark it will -- it's chemically luminescent.  
10 It actually will illuminate by itself. There is a  
11 chemical reaction, it gives off light so you don't  
12 shine a black light on this. It will actually give  
13 off a luminescence. They did this in this case and  
14 where they saw this chemical luminescence they circled  
15 it in chalk and those stains were in the living room,  
16 on the carpet is where they found those positive  
17 reactions.

18 Q. Those particular stains were also smaller in  
19 diameter than a quarter of an inch; is that correct?

20 A. Well, in reading the notes, some of them they  
21 couldn't get -- they didn't have any measurements so  
22 they were a very small stain.

23 Q. And, as a matter of fact, by using the process  
24 apparently they weren't visible to the unaided eye; is  
25 that correct?

1 A. No. For a number of reasons. Some that you  
2 have mentioned and basically some that I have  
3 mentioned before. We don't know if this is even,  
4 except for two of the stains, if they are human blood  
5 or whose blood that is. We don't know if they were  
6 all dripped at the same -- or even if they weren't  
7 dripped, if they came there at the same time or when  
8 they came there. But you're correct, the size itself  
9 tends to indicate that they weren't single drops  
10 falling down.

11 Q. And then as you follow through, the entire  
12 house was processed, was it not, at least later in  
13 time from officer Dombrowski from the 23rd of July  
14 onward; is that correct?

15 A. Yes. They went back to the house five, six  
16 times.

17 Q. Okay. And you saw the photographs with the  
18 chalk mark circles; is that correct?

19 A. Yes.

20 Q. Did you learn through reviewing all of the  
21 information and material that the circles, the chalk  
22 marks were the result of the luminol process being  
23 applied to the carpet inside the dining area of the  
24 Sheppard home?

25 A. Yes.

1 A. Apparently not.

2 Q. So then there are -- apparently those chalk  
3 marks that are throughout the living room, dining room  
4 area, and then there was also some chalk marks that  
5 are made inside of what is known as the doctor's study  
6 or the den or the library or off of the kitchen, were  
7 you familiar with those as well?

8 A. Yes.

9 Q. Again, chalk marks in those particular areas?

10 A. Yes.

11 Q. Is that correct? And also those particular  
12 diameter of those particular blood spots was in a size  
13 less than a quarter of an inch; is that correct?

14 A. I don't know if they made those measurements on  
15 those stains, but I don't have any reference of them  
16 finding large blood stains.

17 Q. Okay. So as far as in relation to this common  
18 characteristic, that if one is bleeding they are going  
19 to have a spot of blood provided that is not  
20 accelerated or there is no velocity attached to the  
21 blood, the dripping of the wound, you would normally  
22 find the diameter of that blood to be in excess of a  
23 half an inch; is that right?

24 A. Hitting smooth, hard surfaces it will be  
25 approximately a half inch, maybe slightly larger. If

1 blood, and we do these all the time, depends on the  
2 surface, surface characteristics of what blood hits.  
3 You might expect blood hitting a carpet in this  
4 courtroom to be even larger. In fact, it is just the  
5 reverse. Blood hitting carpet, the carpet acts more  
6 like an absorbent sponge and it really sucks the blood  
7 in, makes a very small stain in very porous materials  
8 like carpet. So on carpet you will find smaller  
9 stains than you would on hard surfaces like the stairs  
10 in this case.

11 Q. And then also they went into the garage portion  
12 of the home and there is a staircase that leads from  
13 the parking area of the garage upstairs to a room  
14 above the garage; is that correct?

15 A. Yes, I believe so. I have not seen photographs  
16 but there is reference to them testing for blood  
17 stains on those stairs and finding some positive  
18 results.

19 Q. Okay. So through this luminol process they  
20 also spotted blood or apparently got a reaction  
21 through the luminol process for certain stains on the  
22 staircase going up into this little club room; is that  
23 right?

24 A. I believe so. I'm not sure if it was luminol  
25 or one of the other chemical tests, but if you tell me

1 Q. Okay.

2 A. So this is the riser.

3 Q. If we rely on what the reports and what the  
4 testimony was going back to 1954, the claim is it is  
5 on the riser portion of the staircase; is that  
6 correct?

7 A. I don't know. Let me check.

8 Q. Okay.

9 A. My notes on Mary Cowan's report indicate that  
10 on the basement stairs there was one removed from the  
11 sixth step and one stain from the third step, but the  
12 step, not the riser.

13 Q. Not the riser?

14 A. Not the riser.

15 Q. And does that particular notation that Mary  
16 Cowan make describe it as far as a -- the diameter of  
17 that particular spot or either one of those spots, I'm  
18 sorry?

19 A. In her actual report on page 19 one of the  
20 stains from the sixth step is not described with  
21 respect to size. She gives the location, which I  
22 could read, but the one -- the stain section on the  
23 third step she says: "Stain section of the third step  
24 of the basement stair three-sixteenths of an inch by  
25 one-eighth inch was cut out at a location 18 and

1 it was luminol.

2 Q. You have had an opportunity to read very  
3 carefully Mary Cowan's testimony, haven't you?

4 A. Yes, but I just can't recall if it was a  
5 luminol test or one of the other chemical tests, but  
6 there was blood, you're right.

7 Q. And also the diameter of those particular spots  
8 was less than a quarter of an inch?

9 A. I believe so.

10 Q. And then there was also testing that went down  
11 into the basement, right?

12 A. Yes.

13 Q. And there was some blood, at least there was a  
14 sufficient quantity of blood taken from the third  
15 riser from the basement floor; is that correct?

16 A. Yes, there were two stains taken and I guess I  
17 would have to check which stairs, but it sounds  
18 correct, the third riser and maybe there was a sixth  
19 riser that there were two stains that they took for  
20 precipitant test, to determine if they were human.

21 Q. Now you understand the term riser. This is the  
22 step that the foot applies to, and then the backboard  
23 leading down to the next step -- what do you  
24 understand the term riser to mean?

25 A. This portion, and this is the flat portion.

1 one-fourth inch from the east side of the step and  
2 four inches from the edge of the step. A clean razor  
3 was used."

4 So this was three-sixteenths of an inch by  
5 one-eighth inch size stain.

6 Q. Okay. Were there any other blood items  
7 observed in the basement through the various  
8 processing that the technicians did back in 1954?

9 A. There was in the basement itself?

10 Q. Yes, sir.

11 A. I believe there was at least two other circled  
12 areas that had some pictures in the basement area that  
13 I'm assuming gave a positive reaction.

14 Q. So based upon your review, then, were you able  
15 to ascertain that any of these spots that were  
16 observed either in the living room, the dining room,  
17 the staircase going up to the murder room above the  
18 garage, found in the study or the doctor's office, on  
19 the staircase going down to the basement, can you tell  
20 us to a reasonable degree of scientific certainty, if  
21 any of those blood spots were related to the homicide?

22 A. No. As I indicated before, these stains,  
23 because we only know that a few of them are human  
24 stains, we didn't find out any other information,  
25 whose grouping they were or I have no way of telling

1 when these were produced or by whom or by what animal.  
 2 I have -- they may have nothing to do with the  
 3 homicide at all.  
 4 Q. And isn't it a fact through the course of the  
 5 trial there were a number of explanations that were  
 6 offered, claims as far as the source of these blood  
 7 spots?  
 8 A. There may have been.  
 9 Q. From the dog menstruating to children cutting  
 10 themselves inside the house, the neighbor boy cutting  
 11 himself, correct?  
 12 A. Yes. Dr. Sheppard I think was asked and he --  
 13 about what types of incidents could have produced  
 14 blood in the house and all those were mentioned during  
 15 the trial.  
 16 Q. And through the review of your materials and  
 17 the information that was provided to you, you also  
 18 knew that first of all that Dr. Sheppard was in fact  
 19 involved in the medical field and dealt with blood on  
 20 a regular basis, did he not?  
 21 A. I presume so, yes.  
 22 Q. You were aware that there were also heads that  
 23 were found in the garage that Dr. Sheppard was using  
 24 for practicing his surgery, were you not?

1 Q. You didn't know that one?  
 2 A. Until you just --  
 3 Q. So there are a number of explanations as to if  
 4 that is blood, where that blood came from; is that  
 5 right?  
 6 A. As I mentioned now for the third time, there is  
 7 no scientific basis to say when and how those stains  
 8 were deposited.  
 9 Q. Yet you can tell us with a scientific basis  
 10 that the particular spot on the wall, do you want to  
 11 turn it sideways -- what's that number for the record?  
 12 MR. BOLAND: Plaintiff's  
 13 exhibit 1135.  
 14 MR. DEVER: Can you take  
 15 those lights down a little, too?  
 16 Q. I will give you this, Doctor, and I will use  
 17 this.  
 18 A. It's Mr.  
 19 Q. Mr. I'm even doing it now. Okay.  
 20 A. Yes.  
 21 Q. Apparently this is a photograph that Dr. Kirk  
 22 made in 1955; is that correct?  
 23 A. That's correct.  
 24 Q. And as far as time, the homicide had been over

1 that time frame, is that correct, July of 1954, this  
 2 is January of 1955, right?  
 3 A. Yes, that's correct.  
 4 Q. And it's your claim that this particular spot  
 5 right here, is that correct, is indicative of a  
 6 bleeding wound; is that correct?  
 7 A. Well, I am saying that it has clearly been  
 8 deposited on that door from a different mechanism than  
 9 the impact spatters that are all around. All the  
 10 others are small. This is a very, very large stain  
 11 that couldn't have been deposited from the beating of  
 12 Marilyn Sheppard.  
 13 Q. You are aware of the concept of weapon throw  
 14 off, aren't you?  
 15 A. Of what?  
 16 Q. Of weapon throw off?  
 17 A. Of blood being castoff from a weapon?  
 18 Q. Yes, castoff.  
 19 A. Yes, I teach that.  
 20 Q. Don't you teach in your course that in order to  
 21 evaluate a particular area of blood spatter, you have  
 22 to look for the pattern and not focus on one  
 23 particular spot; isn't that correct?  
 24 A. Yes and no.

1 A. In other words, you need a pattern, you need a  
 2 pattern like in castoff, a whole series of stains that  
 3 are usually going from circular to elongated. You  
 4 need enough of the pattern, enough stain to come to  
 5 that conclusion. However, single droplets like drops  
 6 of blood or in this case this large stain stands out  
 7 by itself.  
 8 Q. So this particular stain standing out by itself  
 9 is not related to this particular stain or to the  
 10 other stain further down; is that correct?  
 11 A. I don't believe so.  
 12 Q. Do you find any type of directionality with  
 13 these three particular stains?  
 14 A. There is only -- as I pointed out with that  
 15 enlargement of that stain, that one right there, it  
 16 looks like it almost hit at 90 degrees and it may have  
 17 been from gravity on the door a slight pull down, but  
 18 I don't see any directionality.  
 19 Q. But you do find directionality in these  
 20 particular spots, do you not?  
 21 A. Well, there may be. I haven't -- from that  
 22 photo I can't tell.  
 23 Q. Well in evaluating or preparing yourself to  
 24 testify in this case, essentially what you are stating

1 Sheppard's assailant was in fact cut and as a result  
2 of being cut this particular spot of blood was  
3 deposited on the closet door; is that correct?

4 A. I'm saying almost that. I'm saying that the  
5 most likely source of this stain is from the bleeding  
6 of the perpetrator. Was he cut, gouged, a bleeding  
7 nose, I don't know. But there was an accumulation of  
8 blood and it was deposited on that door.

9 Q. Okay. And did you find any other evidence of  
10 the perpetrator bleeding inside of that room?

11 A. As I indicated in my report to Terry Gilbert,  
12 and you have received that, too, is I believe there  
13 well could have been other stains there from the same  
14 mechanism but they just weren't obtained. I don't  
15 think at the time there wasn't an appreciation to look  
16 for stains out of order. One that I pointed out is  
17 that should have been taken was some stains that were  
18 on Marilyn Sheppard's shoulder, they looked like  
19 dropping blood stains. There could have been other  
20 stains but we don't have photographs of the floor or  
21 other items there.

22 Q. We do have the photographs that Dr. Kirk  
23 prepared at the time that he was going through the  
24 murder room looking for evidence in the area of blood  
25 stain pattern analysis; is that correct?

118

1 A. Yes, we have, and that's one, I believe, we  
2 have some photographs that Dr. Kirk made.

3 Q. Other than this particular spot, and what you  
4 say if we had looked at the time or if they had looked  
5 at the time there might be some other spots there,  
6 other than this spot there is no other evidence of the  
7 assailant bleeding inside of that house; is that  
8 correct?

9 A. Again, not that was obtained. Not that I could  
10 see.

11 Q. Just because it wasn't found doesn't mean it  
12 was there; is that right?

13 A. No, that's correct. I believe it just  
14 wasn't --

15 Q. Now you recall -- when was the last time that  
16 you saw Dr. Paul Kirk alive?

17 A. It was about 1968 I saw him, he was dying of  
18 cancer, I flew to California because we were -- he had  
19 to take a deposition in a case and that's when I last  
20 saw him.

21 Q. So you had worked with him after you had  
22 completed your studies with Dr. Kirk?

23 A. Actually it was a case I testified on and  
24 they -- I was testifying for the prosecution and  
25 defense wanted to depose Dr. Kirk on some of my work.

1 So we were not on the same side of the case, if you  
2 want to say that.

3 Q. So did you maintain a friendship with Dr. Kirk  
4 up to his death?

5 A. That was the last time I saw him and as I  
6 mentioned before, I had the role of -- it was more of  
7 a student-professor. I was not a close friend as some  
8 students that went on to do undergraduate work and  
9 work directly with him. I would not say I was a close  
10 friend with him at all.

11 Q. Now you were familiar with there were these two  
12 spots that were taken or gathered up at Dr. Kirk's  
13 direction by Reverend Scully and sent to Dr. Kirk out  
14 in California, this spot here and this spot here, were  
15 you not?

16 A. Yes, that's correct.

17 Q. And there was an enormous amount of controversy  
18 concerning Dr. Kirk's testimony as it relates to those  
19 two spots, was it not?

20 MR. GILBERT: Objection.

21 THE COURT: Overruled.

22 A. What was the question?

23 Q. There was an enormous amount of controversy  
24 concerning Dr. Kirk's opinions as to those particular  
25 blood spots?

120

1 A. Well, I don't think there was controversy  
2 taking the samples, but there was some blood grouping  
3 that was done that there was a lot of comment about.

4 Q. Now blood grouping tests are -- we are able to,  
5 under the ABO method, will you tell us what the method  
6 is?

7 A. What the method is?

8 Q. Yes.

9 A. It is a technique to determine the four major  
10 blood groups of individuals. People know there is A,  
11 B, AB and O, and they are a determination of these  
12 four major groups by two different techniques. One,  
13 when blood dries it is way more difficult to group  
14 than when have you a liquid blood sample. But at the  
15 time there were two techniques to determine the ABO  
16 blood group.

17 Q. Dealing with dried blood, which was the  
18 particular instance in this case, Dr. Kirk typed these  
19 two blood groupings, did he not?

20 A. Yes.

21 Q. And he determined them to be type O, did he  
22 not?

23 A. Yes, he determined both of them to be group O.

24 Q. Group O was in fact Marilyn Sheppard's blood  
25 group, was it not?

1 A. Yes, Marilyn Sheppard was group O. 40 percent  
2 of the population.  
3 Q. Dr. Sam Sheppard's blood group was also blood  
4 or was blood group A, was it not?  
5 A. Yes, Dr. Kirk determined that.  
6 Q. And Richard Eberling's blood group was also A,  
7 was it not?  
8 A. I don't know his ABC blood group.  
9 Q. You mean to tell me when you were up there with  
10 the consultants and the 200 hours that you spent on  
11 getting ready for this case you never determined what  
12 Richard Eberling's blood type was?  
13 A. That's what I am telling you, yes.  
14 Q. If I was to tell you that it was blood group A,  
15 what significance would blood group A have to these  
16 two blood group O stains?  
17 A. Well, you would say that if that's group O, so  
18 group O, that it is not coming from a group A person.  
19 Q. So that it would exclude Eberling as the source  
20 on that door on those two blood spots, would it not?  
21 A. I presume if you have him as group A --  
22 Q. Can an A be an O?  
23 A. No, I just said that.  
24 Q. Can an O be an A?  
25 A. No, it cannot.

1 Q. Now if Dr. Paul Kirk's testing is correct, that  
2 he did all of this work as far as typing the blood and  
3 he determined that it to be type O blood, then anyone  
4 who is type A blood is excluded as the source on that  
5 door; isn't that correct?  
6 A. Yes, assuming Paul Kirk's work is correct,  
7 which you can.  
8 Q. Yet when you testified here this morning you  
9 say, well, the DNA puts Richard Eberling on that stain  
10 on the door.  
11 A. I just said that there is indication here of  
12 blood that's not from Sam Sheppard and Marilyn  
13 Sheppard.  
14 Q. Well that's not necessarily accurate, is it,  
15 Mr. Epstein?  
16 A. No, it may not. It looks like there is a  
17 mixture of blood from the DNA.  
18 Q. There is a mixture from the test. Whether the  
19 test is measuring blood or coughs or sneeze or  
20 biological material, that's for Dr. Tahir to testify  
21 to, isn't it?  
22 A. I think you are right in that vein, others with  
23 more experience in DNA can surely tell this jury more.  
24 Q. But just on whether whatever the DNA does, we  
25 can exclude Eberling as the source of this blood just

1 by mere typing; isn't that correct?  
2 A. If the blood groupings as you just said were  
3 correct, an A cannot be an O.  
4 Q. When Dr. Kirk testified in 1966 he was able,  
5 through his science, to be able to claim that when he  
6 was doing the testing process on these two dried blood  
7 stains, which he ultimately tested to be type O, that  
8 the way that they dissolved in this solution of  
9 distilled water, he had two cups, the way they  
10 dissolved in this solution of water, with distilled  
11 water, one reacting or dissolving right away and the  
12 other reacting -- or not reacting and requiring  
13 overnight for it to dissolve that, he was able to  
14 distinguish that these were two different type O  
15 bloods; is that correct?  
16 A. That was one of three different criteria that  
17 he used to distinguish them.  
18 Q. In your years of working as a criminalist,  
19 especially in the area of blood spatter analysis, is  
20 that an accepted scientific fact, that the level or  
21 the rate of solubility has a direct relation on blood  
22 typing?  
23 A. Well, it has some relation to blood typing. We  
24 see different stains dissolve differently from  
25 different people. However, I mean I wasn't there to

1 see these observations. I can't comment anything more  
2 than that's what the basis was that Dr. Kirk used,  
3 along with two others which were the amount that --  
4 the quickness that this stain agglutinated with cells,  
5 and he did an electrophoresis technique.  
6 Q. The agglutination was a comparison with the  
7 mattress cover and one of these stains, was it not?  
8 A. I believe it was both these.  
9 Q. And you read the affidavit of Dr. Kirk as well  
10 as the testimony, his transcript, as far as what he  
11 did?  
12 A. Yes.  
13 Q. So isn't this a load of nonsense, claiming that  
14 the level of solubility or the rate of solubility can  
15 be able to distinguish between two blood types, two  
16 type O; is that correct?  
17 A. Well "load of nonsense" is pretty strong.  
18 Would all people use this as a criteria? Probably  
19 not.  
20 Q. Have you?  
21 A. No, I have not.  
22 Q. Have you, through the years that you have been  
23 conducting these seminars and these groups, have you  
24 heard of that type of method being used to distinguish  
25 blood typing?



1 A. Well, in a practical sense when we have done  
2 blood grouping in the laboratory, we have seen  
3 different individuals' stains and dried stains go into  
4 solution at different rates and so it is a clue or an  
5 indicator to look for difference.

6 Q. What body of knowledge says that it is a clue  
7 or an indicator for distinguishing between two  
8 different O bloods?

9 A. Well, Dr. Paul Kirk pointed to Leon Lattes'  
10 test and can I give you references to that.

11 Q. My question to you, is that particular science  
12 or that particular claim that he has used, has that  
13 been tested out and proved to be positive as a direct  
14 form of testing and distinguishing between two blood  
15 types?

16 A. No, it would just be an indicator to go onto  
17 other things.

18 Q. Yet Dr. Kirk in 1966 gets up and tells the jury  
19 that there are two different blood types on that wall  
20 and therefore Marilyn bit her assailant and that's her  
21 blood, his blood on the door; isn't that right?

22 A. He did that test along with an electrophoresis  
23 technique that showed differences between that large  
24 stain and the other stains and on that basis he  
25 concluded that in fact there was a different blood

1 type O blood on this particular stain, wardrobe stain,  
2 no matter what your DNA does, you have to exclude  
3 Eberling because he is type A; did you talk to him  
4 about that?

5 A. No, because I didn't know he was type A.

6 Q. Well that would be a question that you would  
7 want to know, or an answer to, right?

8 A. All I'm saying is I didn't know until today  
9 that Mr. Eberling was group A.

10 Q. Now you are familiar with this book called  
11 Blood Stain Pattern Analysis, aren't you?

12 A. By who?

13 Q. By Tom Bevel and Ross Gardner.

14 A. Yes.

15 Q. As a matter of fact, it makes reference to some  
16 of your work in here, right?

17 A. Yes.

18 Q. Have you read this book before?

19 A. I have used and read portions of that book.

20 Q. And the authors of this book make it very clear  
21 they pay pretty close respect to Dr. Paul Kirk.

22 However, they indicate that his work is difficult to  
23 defend in this particular case; isn't that correct?

24 A. They may.

25 Q. Showing you page 12, page 13 of the book, there

1 group. Could I do that? Would I have done that? I  
2 don't have the stains. Others now have taken that  
3 large stain, fortunately it was preserved and I think  
4 you will hear more about that.

5 Q. Those particular stains were tested for DNA,  
6 not for blood typing, were they?

7 A. Recently, I believe that's correct.

8 Q. So as far as the blood typing, we have to rely  
9 on what Kirk says that it is type O; isn't that right?

10 MR. GILBERT: Objection.

11 THE COURT: Overruled.

12 A. I don't know if any other ABO blood grouping  
13 was done recently.

14 Q. Have you talked to Dr. Peter DeForest about any  
15 attempts that have been made to type that blood?

16 A. No.

17 Q. Have you talked with any individuals out in  
18 California that were students of Dr. Kirk's as far as  
19 an effort, Mr. Murdock, to type that particular blood?

20 A. The only person I talked to with respect to  
21 that large stain is Dr. Mohammad Tahir who has done  
22 DNA work. I have not got any results or have talked  
23 to anyone about ABO blood group.

24 Q. When you were talking to Dr. Tahir, did you  
25 mention the fact to Dr. Tahir that, Doctor, this is

1 is mention of Dr. Paul Kirk, his work, and most  
2 specifically his work involving the Sam Sheppard  
3 investigation. Would you read the footnote as far as  
4 what they indicate about Dr. Kirk's behavior during  
5 the Sheppard trial?

6 MR. GILBERT: Objection, Your  
7 Honor, unless they are willing to bring those  
8 people in and testify.

9 Q. You are in the book, aren't you, Mr. Epstein?

10 THE COURT: Sustained.

11 MR. GILBERT: It's totally  
12 hearsay.

13 Q. You would acknowledge that the work that Dr.  
14 Paul Leland Kirk did in 1966 might have been unique,  
15 might have been interesting, might have provided some  
16 entertainment value?

17 MR. GILBERT: Objection.

18 Q. But as far as the test of science it has failed  
19 to stand up, has it not?

20 THE COURT: Overruled. I'll  
21 allow that. It's a question, it gives you  
22 latitude.

23 A. There are a number of questions there. Do you  
24 want me to comment about what's in this book?

25 THE COURT: No, right at this

1 point he is asking you a question. Ask another  
2 question, one question.

3 Q. Dr. Kirk prepared an affidavit?

4 A. Yes.

5 Q. In 1955, right?

6 A. That's correct.

7 Q. He testified in 1966 --

8 A. Yes.

9 Q. -- on behalf of Dr. Sam Sheppard; is that  
10 correct?

11 A. Yes.

12 Q. You had an opportunity to read his affidavit?

13 A. Yes.

14 Q. You have had an opportunity to review his  
15 testimony?

16 A. Yes.

17 Q. Right?

18 In his affidavit he makes the claim, based upon  
19 scientific tests that he performed, first of all that  
20 the injuries that were sustained to Marilyn Sheppard's  
21 mouth were as a result of fractures caused by biting  
22 her assailant; is that correct?

23 A. He claimed that the -- there was a broken tooth  
24 that was found under the bed and from Marilyn  
25 Sheppard's right incisor and he did some tests, he

1 is that correct?

2 A. Yes.

3 Q. Now you were aware, weren't you, that Dr. Sam  
4 Sheppard was right-handed?

5 A. I was not aware of that.

6 Q. You are not aware of that significant fact?

7 A. No, because -- no.

8 Q. You were aware that Dr. Kirk claimed that as a  
9 result of Mrs. Sheppard biting her assailant as he was  
10 causing these blows, he also had an opinion that this  
11 is a baseball type swing, doesn't he?

12 A. Yes.

13 Q. As opposed to overhead swings, right?

14 A. Yes.

15 Q. And it was his opinion that the bleeding wound  
16 of the assailant, bushy-haired man, as a result of  
17 doing a back swing in the baseball type format, the  
18 centrifugal force at that particular point in time,  
19 when the back swing was at its furthest end before it  
20 comes forward, that there was castoff from the wound  
21 and that's what resulted in that particular blood spot  
22 here on the door; isn't that correct?

23 MR. GILBERT: Objection.

24 THE COURT: Overruled.

25 A. No, not at all. He did not say that. He

1 came to the conclusion that that was broken from  
2 inside out and that would be consistent with the  
3 perpetrator being bit by Marilyn Sheppard and  
4 withdrawing the hand, breaking this tooth off.

5 Q. Do you agree with that opinion?

6 A. I don't agree or disagree. There has been a  
7 lot of work recently done as you are aware.

8 Could Marilyn Sheppard have bitten the  
9 attacker? I believe that's always possible. Did the  
10 bite cause the breaking off of the tooth, or how was  
11 that tooth broken off, I don't know how that was  
12 broken off.

13 Q. You would agree that to defer to the knowledge  
14 of particular experts in the field of dentistry as far  
15 as that possibility or probability, would you not?

16 A. Yes. I believe Dr. Kirk did some experiments,  
17 as you are aware of, and it's in the affidavits, and  
18 he pulled a bunch of broken teeth and made -- to see  
19 how they would break. He, at the end of that portion  
20 of his affidavit, indicates that this is just a  
21 preliminary study and further work must be done. So  
22 even he acknowledges that more work should have been  
23 done in this area.

24 Q. In addition, Dr. Kirk came in with the opinion  
25 that the assailant of Mrs. Sheppard was left-handed;

1 indicated he believed this was a left-handed swing,  
2 there was castoff stains being flung onto those two  
3 doors in a pattern that was consistent with castoff  
4 staining, and later he indicates this blood stain, the  
5 large blood stain was in fact not from the flung-off  
6 blood, this is from blood that had accumulated and was  
7 deposited on the door and was consistent when he tried  
8 to explain that as how did that actually occur. I  
9 can't do that. I don't know if Dr. Kirk, he did, and  
10 I don't know if he had -- he didn't have the basis  
11 from the -- it wasn't coming from the swing at all.

12 Q. So scientifically you cannot justify Dr. Kirk's  
13 claim that this is a left-handed assailant?

14 A. I have already testified to this jury.

15 Q. I'm pinning you down, Doctor, or Mr. Epstein.

16 A. I have said I have already given this answer.  
17 I have told this jury, from the blood spatter, and I  
18 will tell you again, on that door I cannot determine  
19 whether this was a left-handed or a right-handed  
20 person. That doesn't mean he wasn't right-handed or  
21 it doesn't mean he was left-handed, but there was no  
22 distinct pattern on that door as opposed to what Dr.  
23 Kirk said he observed. I would disagree with him on  
24 that point.

25 Q. Now in the particular spatter pattern on the

1 doorway, were you able to ascertain the number of  
2 blows that were caused to Mrs. Sheppard's body in  
3 order to produce that spatter?

4 A. No. What happens when an item -- you can get a  
5 minimum number of blows, at least two, one to get the  
6 blood to the surface and then a hitting. If a person  
7 is hit repeatedly in the same position, the stains  
8 keep radiating out and overlap and you cannot tell the  
9 number of blows. The best is to go to the pathologist  
10 who can count the number of wounds on the head.

11 Q. And the testings that you found that there was  
12 a portion of this particular east wall of the Sheppard  
13 bedroom where there appeared to be no spatter  
14 whatsoever; is that correct?

15 A. Yes, from the photographs that were taken and  
16 the diagrams that were produced.

17 Q. And you were able to infer that there had to be  
18 something blocking or standing in the way of the  
19 target, being Mrs. Sheppard's head, and that wall that  
20 intercepted that particular blood; is that correct?

21 A. That's correct.

22 Q. And that is the reason why your opinion was  
23 that whoever caused these injuries to Mrs. Sheppard  
24 had to get some blood on themselves, right?

1 Q. Because of that spattering throughout the room;  
2 is that right?

3 A. Yes.

4 Q. And then you come in and you give the opinion  
5 that because Dr. Sam Sheppard's trousers that were  
6 taken from him in the morning hours of July 4th, 1954,  
7 only have a slight smear on the left pant leg, that  
8 Dr. Sam Sheppard couldn't have been in the room; is  
9 that right?

10 A. Yes. Between the stains not on his pants and  
11 also none found by Mary Cowan on the belt or shoes or  
12 any other of his clothing.

13 Q. Wouldn't it be more accurate, Mr. Epstein, to  
14 say that the trousers were not in the room at the time  
15 that this assault took place?

16 A. Yes, that would be more accurate.

17 Q. Whether Dr. Sam Sheppard was wearing those  
18 trousers at the time of this assault is unknown; is  
19 that correct?

20 A. Yes. In fact, that's exactly correct. If I  
21 have made the assumption, and I guess you will have to  
22 correct me if I'm wrong, or show that he was wearing  
23 those pants from the time he indicated that he came  
24 from the day bed up and to the next morning, if in

1 Q. And we also know throughout this particular  
2 case that he was wearing a T-shirt on that particular  
3 night, or claimed to have been wearing a T-shirt; is  
4 that correct?

5 A. Yes, I believe you are correct. The testimony  
6 will indicate that when he fell asleep he indicates  
7 that he was wearing a T-shirt.

8 Q. He was unable to provide any account as to  
9 where that T-shirt went when it left his body; is that  
10 correct?

11 A. Yes, I believe when he was found he did not  
12 have a T-shirt and he could not explain that.

13 Q. So the condition of that T-shirt, whether it  
14 contained spatter or did not contain spatter, we don't  
15 know the answer to that question; is that correct?

16 A. That's correct.

17 Q. So as far as we know about the trousers, all  
18 you can say is they weren't in the room at the time  
19 that this woman met her death; is that correct?

20 A. Yes, you would expect if they were to have had  
21 a lot of spatter on them, yes.

22 Q. Now let's go through a few of these crime  
23 scene, the photos. I want to ask you some questions  
24 about smears and stuff like that. All right?

1 be a suitable time. We will take a short  
2 break.

3 Ladies and gentlemen, this will be one  
4 of those where it is up to you. I think we  
5 will be ready to come back when you are ready.

6 Do not discuss this case among  
7 yourselves, do not permit anyone to discuss it  
8 with you or in your presence. You are  
9 instructed not to form or express an opinion on  
10 this case until it is finally submitted to you.  
11 This will be 15 minutes or less, maybe. Right  
12 around there.

13 To the witness, you are in the middle  
14 of your testimony, do not discuss your  
15 testimony with either lawyer.

16 (Thereupon, a recess was had.)

17 BY MR. DEVER:

18 Q. Mr. Epstein, this has been marked as  
19 plaintiff's exhibit 275. Would you take a look at  
20 that, 275, and do you see what that document purports  
21 to be?

22 A. It's labeled Cuyahoga County coroner's office  
23 trace evidence department and gives some case numbers  
24 indicating that some fluid blood sample was given on

1 Richard Eberling type A determined by Linda Luke.  
 2 Q. So is this the first time, sir, that you have  
 3 learned -- I was just asking you about the top page of  
 4 this, the first time that you have learned that  
 5 Richard Eberling's blood type was type A?  
 6 A. Yes.  
 7 Q. And it's clear from your testimony, based upon  
 8 your review of the records, the transcript of Dr. Kirk  
 9 as well as the affidavit of Dr. Kirk, that those  
 10 stains that appear on the wall in the bedroom are of  
 11 type O; is that correct?  
 12 A. That's what Dr. Kirk reported, yes.  
 13 Q. Now looking at that blood stained pattern on  
 14 the wall, could you determine that there was more than  
 15 one person in the room at the time of this attack?  
 16 A. Could there be more?  
 17 Q. Yes, sir.  
 18 A. There could be more. What this indicates is at  
 19 least from the location of the interrupted stains,  
 20 that something was there to block that, that would be  
 21 the person who is hitting and beating Marilyn  
 22 Sheppard. Could there have been someone else in a far  
 23 distant part of that room or -- there is no way to  
 24 establish that there was or was not from the blood  
 25 spatter.

1 to those five particular stains, there is no evidence  
 2 inside that house of type A blood that was identified;  
 3 is that right?  
 4 A. Not that I know of.  
 5 Q. I'm going to ask you some questions now  
 6 concerning the bed and the position of the body. Is  
 7 it your contention, Mr. Epstein, that Mrs. Sheppard's  
 8 body is in the location of, the approximate location  
 9 of when she was assaulted, the photographs that are  
 10 depicted, do they show her at the location she was at  
 11 the time the assault began and concluded?  
 12 A. My contention is not to answer it yes or no,  
 13 but is to say that this is where her -- where  
 14 everything ended, the beating. When she was bleeding  
 15 and being beaten a number of times was right in that  
 16 location. That's where it ended and stopped right  
 17 there. Nothing happened from the photographs after  
 18 that. Now before, which is what you were implying as  
 19 well, could she have been in some location up higher  
 20 on the bed, was there a sexual assault before, was she  
 21 hit before and not bleeding, I can't tell that.  
 22 Q. Can you tell whether or not she was standing at  
 23 the beginning of this assault?  
 24 A. No.  
 25 Q. Now we had some discussion concerning the

1 Q. From the blood spatter are you able to  
 2 ascertain that there was more than one assailant, one  
 3 participant in the beating death of Mrs. Sheppard?  
 4 A. No.  
 5 Q. Do you have an opinion as to how many people  
 6 were involved in the killing of Mrs. Sheppard?  
 7 A. Do you mean -- excuse me, from the beating, it  
 8 looks like the width of one person standing there that  
 9 was doing the beating and intercepting the blood  
 10 stains. Is that the question?  
 11 Q. Yes, sir. So scientifically there is only  
 12 evidence of a single person in that particular  
 13 location for the beating; is that correct?  
 14 A. Yes.  
 15 Q. Okay.  
 16 A. Yes, there is only basis to say one person.  
 17 Q. Now dealing with the bed itself, was there any  
 18 type A blood found inside that house?  
 19 A. As a result of these examinations that I  
 20 reviewed there was five blood stains that were  
 21 determined to be human blood by Mary Cowan, none of  
 22 them were grouped.  
 23 Q. So none were typed?  
 24 A. None were typed blood group ABO that I know of.  
 25 Q. So other than knowing or not knowing the answer

1 pillow on the bed. Do you remember those questions?  
 2 A. From Mr. Gilbert?  
 3 Q. Yes, from Mr. Gilbert.  
 4 A. Yes.  
 5 Q. These are set number 1104 and 1105. Do you see  
 6 that photograph?  
 7 A. Yes.  
 8 Q. You have seen that before, have you not?  
 9 A. Yes.  
 10 Q. Now this indicates that there appears to be  
 11 blood on the pillow; is that correct?  
 12 A. Yes, there is a lot of blood on the pillow.  
 13 Q. And there appears to be -- would you call this  
 14 particular area indicative of spatter type blood?  
 15 A. Yes, that's -- that is spatter, small stains  
 16 have been broken up and spattered on to the pillow.  
 17 Q. That would be consistent with blunt force  
 18 trauma, would it not?  
 19 A. Yes, consistent from hitting Marilyn Sheppard  
 20 and spattering of the blunt force, if that's what you  
 21 are saying.  
 22 Q. Are you able to narrow, based upon the spatter  
 23 analysis that you did in the evaluation of this case,  
 24 are you able to narrow it down through what type of an  
 25 object caused these particular injuries or produce

1 this particular type of spatter inside the murder  
2 room?  
3 **A.** No. From looking at the spatter you cannot  
4 tell magically that it was made by a hammer or a bar  
5 or a flashlight, you cannot tell. All those are going  
6 to break up blood in small particles.

7 **Q.** Now this particular area, do you call this  
8 spatter?

9 **A.** No, that's of course what we call contact or  
10 soaking stain. It's a large amount of -- it's that  
11 surface has come in contact with a large amount of  
12 blood and it's soaked in.

13 **Q.** Now let's look at the other photo, the other  
14 side of the pillow.

15 **MR. BOLAND:** Plaintiff's  
16 exhibit 1105.

17 **Q.** Have you seen this photograph before?

18 **A.** Yes.

19 **Q.** Now this is the photograph with the famed  
20 surgical instrument depicted in it, is that correct,  
21 or the claimed?

22 **A.** Well, I believe that the use of those terms  
23 was -- is inaccurate. You can't claim that.

24 **Q.** All right. Do you find this to be spatter,  
25 this area on the pillow?

1 shows the pillow removed from that area, that same  
2 shot that has -- it shows this large stain without  
3 Marilyn Sheppard there after she was removed and up in  
4 that area it appears to be where that pillow was, it  
5 does appear, as you have indicated, not to have any  
6 large blood stains there. I warn anyone from coming  
7 to the conclusion, however, because there is only this  
8 one photograph, again the limitations of photographs,  
9 there may have been some slight deposits there. There  
10 surely is no heavy deposit of blood there.

11 **Q.** Would it be fair to conclude then that if there  
12 is no heavy deposit of blood underneath the pillow,  
13 that the stain itself had to have sufficient time to  
14 dry before it was placed in that particular position  
15 to not create a transfer stain of that blood?

16 **A.** No.

17 **Q.** Why is that?

18 **A.** Well from my observation of that pillow and  
19 from those two shots and some work that I have done  
20 with an actual pillow, it looks like that stain well  
21 may not be hitting the bed sheet at all.

22 **Q.** So it could be raised up sufficiently enough  
23 that it is not actually touching; is that correct?

24 **A.** Exactly.

25 **Q.** Now the particular stain here -- can you

1 **A.** There is some spatter and contact staining in  
2 this area right here. There is some small stains,  
3 round stains that look like spatter and then there is  
4 some slight contact and actually a closer look it has  
5 some smears there.

6 **Q.** And this would be contact stain; is that  
7 correct?

8 **A.** Yes, both those, if you want to call it in the  
9 two or three areas here, these larger areas are again  
10 contact, that pillow has come in contact with a large  
11 amount of blood.

12 **Q.** So what we have here is we have blood spatter  
13 on both sides of that pillow; is that correct?

14 **A.** Yes, there is indication of blood, yes.

15 **Q.** So it would be fair to conclude that both sides  
16 of that pillow during this assault on Mrs. Sheppard  
17 were exposed to blood spatter; is that correct?

18 **A.** Yes.

19 **Q.** And yet we know that underneath the pillow at  
20 the time that the body is removed and this pillow is  
21 removed, underneath the pillow there is no transfer  
22 stain of blood onto the bed sheet; is that correct?

23 **A.** That's only -- yes and no. In other words, it  
24 needs explanation.

25 There is only one photo that I have seen that

1 enhance this, Dean, zoom it up?

2 Now this particular outline -- I guess the  
3 photographs are better. Is that the best you can do?

4 **MR. BOLAND:** With that one.

5 **Q.** You are familiar with this somewhat of an  
6 outline here that apparently is symmetrical on each  
7 side, are you not?

8 **A.** Yes.

9 **Q.** Now this particular outline, you have indicated  
10 that this is as a result of the pillow folding; is  
11 that correct?

12 **A.** I indicated that I don't know exactly how that  
13 was made but it would be my best judgment from  
14 experience that that looks like the result of a  
15 symmetrical fold.

16 **Q.** So this impression here as well as this  
17 impression here you believe as a result of a fold  
18 process?

19 **A.** Yes, either folding after it was bloody or it  
20 came in contact, was in contact and then separated.  
21 But, yes, there was a folding action, I believe.

22 **Q.** Now you cannot exclude, can you, Mr. Epstein,  
23 the possibility that this impression, this object or  
24 this figure even was placed upon this pillow after a  
25 sufficient period of time for the initial stain of

1 blood to dry and then another bloody object placed on  
 2 top of the pillow to create this type of impression?  
 3 A. For the reasons I have stated, I don't see how  
 4 that could be accomplished.  
 5 Q. So you don't agree with that possibility; is  
 6 that correct?  
 7 A. That's correct.  
 8 Q. Now you would agree that blood takes a  
 9 sufficient period of time to dry, does it not?  
 10 A. Yes.  
 11 Q. And there are a number of studies that have  
 12 been done as far as drying times; is that correct?  
 13 A. Yes.  
 14 Q. And for quantities of blood, you could perform  
 15 calculations as far as the volume of blood that's  
 16 placed on a particular surface and then based upon the  
 17 humidity within the room and the temperature you can  
 18 put a stop watch on that particular spot and measure  
 19 the drying time; is that correct?  
 20 A. Yes, we have done those experiments and  
 21 published them in the workbook.  
 22 Q. In preparation for this particular case did you  
 23 gather up a bunch of pillows and pour volumes of blood  
 24 on the particular pillows to measure drying times?  
 25 A. To measure drying times, no.

1 Q. Did you perform an experiment of any sort in  
 2 which you first poured a portion of blood, a volume of  
 3 blood onto a pillow, allowed it to dry for a period of  
 4 time for the area to remain dry and then apply an  
 5 object on to the pillow to see if you could reproduce  
 6 this particular impression?  
 7 A. No.  
 8 Q. This is marked as state's exhibit 305. You  
 9 have seen this photograph before, have you not?  
 10 A. Yes.  
 11 Q. Now first of all I have a couple of questions  
 12 concerning what appear to be smears. Would you  
 13 categorize these type of marks on the abdomen of Mrs.  
 14 Sheppard to be categorized to be smears?  
 15 A. Yes.  
 16 Q. And would you categorize these particular marks  
 17 to be spatter, or what would you call those?  
 18 A. Without seeing them on the body, this appears  
 19 right here to be some heavier deposits, but I believe  
 20 they are associated with the smears and I don't  
 21 believe they are impact because they are associated  
 22 with the smears themselves. In other words, you can  
 23 have heavier deposits being pushed along and left by  
 24 the end of the smear and depending on what was doing  
 25 the smearing again could slightly, you know, produce a

1 few small stains, just as I indicated on the watch.  
 2 This, only seeing two or three little stains you don't  
 3 know exactly the mechanism that caused it, but since  
 4 they are associated with smears I believe that was  
 5 smeared on there either by her or by somebody else.  
 6 Q. And now you also see what appears to be some  
 7 feathering of blood along the left wrist of Mrs.  
 8 Sheppard; is that correct?  
 9 A. There is a blood deposit, apparent blood  
 10 deposit there. I have been asked about that many  
 11 times and it looks like it is a heavier deposit right  
 12 here with some slight blood running down towards the  
 13 fingers and the hand. I do not know how that was  
 14 caused.  
 15 Q. Well you would agree that it appears that in  
 16 the position of this body, taking a look at all of the  
 17 photographs, that the blood is running uphill, is it  
 18 not?  
 19 A. No.  
 20 Q. Now would you consider the possibility that  
 21 that hand was in another position at the time that the  
 22 blood was flowing onto the hand?  
 23 A. As I said, it is very -- let me say something.  
 24 With blood spatter, what we can do is get some  
 25 snapshots of what have occurred. In other words, the

1 spatter coming out where a person was, a smear took  
 2 place. When and how to put this all together in a  
 3 video, if you will, is impossible to do.  
 4 So when you are asking me about the stains on  
 5 this wrist, all I can -- I can see them there, I can't  
 6 tell exactly when that was on there. And from the  
 7 position there, it looks like the blood is actually  
 8 running appropriately if the blood was put there. But  
 9 was there movement in her hand before or after that  
 10 blood was on there, I cannot say.  
 11 Q. You can't rule out the possibility that that  
 12 hand or that arm was moved after death came to Mrs.  
 13 Sheppard; isn't that correct?  
 14 A. No, I cannot rule that out.  
 15 Q. Likewise, you cannot rule out the possibility  
 16 that the clothing was altered after Mrs. Sheppard's  
 17 death as far as the shirt being pulled up and in this  
 18 particular position; is that correct?  
 19 A. No, I cannot -- without -- from what I see I  
 20 can't rule that out.  
 21 Q. Of all the information that you had, the 200 or  
 22 300 hours you had on this case, you can't rule it out,  
 23 can you?  
 24 A. No.  
 25 Q. Now did you take a look at Mrs. Sheppard's

1 ankles, her legs?  
 2 A. There is one photograph that shows her legs  
 3 over the end of the bed and it was a photograph  
 4 towards the east wall.  
 5 Q. Did you find any evidence of smearing on her  
 6 legs?  
 7 A. Nothing that I could say definitely.  
 8 MR. BOLAND: This is state's  
 9 exhibit 303.  
 10 Q. This particular area down here, did you find  
 11 any evidence indicating it to be contact transfer of  
 12 blood or smear?  
 13 A. Again, it may be. There as well as right here  
 14 may be a blood spot and this may be, but as I  
 15 indicated very cautious to -- it's a photograph. If  
 16 we were there we could take a look at it to see  
 17 exactly what that is. I don't think anyone made note  
 18 of it or tested it, but it could be but I -- there is  
 19 no way of saying exactly what that is or these other  
 20 stains. I was of course wanting to see other  
 21 photographs of her uncovered, which are nonexistent  
 22 because this sheet was put on, and I would like to  
 23 have seen a lot of things but they are not there.  
 24 Q. So at least based upon the information that was  
 25 provided to you, you can't rule out the possibility

1 of the pajamas by Dr. Kirk that saw spatter on the  
 2 lower ends of them.  
 3 Q. So she had the pajama bottoms off; isn't that  
 4 correct?  
 5 A. That's how she is found.  
 6 Q. And the 200 or 300 hours that you spent on this  
 7 case, you are certain about that as well; is that  
 8 correct?  
 9 A. Certain about she is found and photographed  
 10 with them off.  
 11 Q. She doesn't have them on then, is that what  
 12 you're telling us?  
 13 A. She has them on the right leg and it is off the  
 14 left leg.  
 15 Q. I just asked you that question a minute ago.  
 16 So you don't know --  
 17 MR. GILBERT: Objection, Your  
 18 Honor.  
 19 Q. -- what position her clothing was in at the  
 20 time --  
 21 THE COURT: Sustained to your  
 22 comments. But ask the questions.  
 23 Q. You don't know whether or not she had the  
 24 pajama bottoms on or she had one leg on or one leg off  
 25 at the time that she met her death; is that correct?

1 that the body was moved after death came to Mrs.  
 2 Sheppard?  
 3 A. Yes, I can.  
 4 Q. You can rule that out?  
 5 A. Yes.  
 6 Q. You can say that that is the position that she  
 7 was in at the time that she was killed?  
 8 A. Yes. As I indicated, not particularly with her  
 9 legs in that position, I don't know where her legs  
 10 were. In other words, I am very convinced, as I said  
 11 a number of times to the jury, that her head was right  
 12 down in that position when she was -- where it is  
 13 found in these photographs, when she was bludgeoned  
 14 and after that she was not moved on that bed.  
 15 Now does that mean her legs were in this  
 16 position when she was being beaten? I'm not saying  
 17 that. Her legs could have been up in a defensive  
 18 position. It's a very -- things are happening during  
 19 a struggle like that and then at the end they end up  
 20 like this.  
 21 Q. So, likewise, you could not say whether or not  
 22 she had her pajama bottoms on at the time that she met  
 23 her death?  
 24 A. I can't say that. They were found off of her,  
 25 and again there were some comments but no photographs

1 A. Well, I believe they were as found and the  
 2 reason for that is she was not moved from the position  
 3 when she was hit and I believe to take off pajamas you  
 4 would have to significantly move the body.  
 5 Q. Now you were aware that her watch was taken  
 6 from her, were you not?  
 7 A. Yes, I believe the watch was found downstairs  
 8 in the den.  
 9 Q. Was it your belief based upon your evaluation  
 10 of this case that the watch was taken from her before  
 11 or after she met her death?  
 12 A. I believe the logic would be after death since  
 13 there is blood smears on her watch.  
 14 Q. Okay. And then that watch is found downstairs  
 15 in the doctor's study; is that correct?  
 16 A. Yes.  
 17 Q. So whoever the assailant or the thief was, took  
 18 the trouble to take the watch off?  
 19 A. Yes, sir.  
 20 Q. They forgot to take it with them when they left  
 21 the premises; is that correct?  
 22 MR. GILBERT: Objection.  
 23 THE COURT: Sustained.  
 24 Q. Do you have any type of explanation based upon  
 25 your scientific evaluation of this case as to why the

1 watch was down in the den?  
 2 MR. GILBERT: Objection.  
 3 THE COURT: Overruled. If he  
 4 has some basis.  
 5 A. Why it's down there?  
 6 Q. Yes.  
 7 A. I have no scientific evaluation. It was found  
 8 there. Why, I don't know.  
 9 Q. Now that particular watch, you had a chance to  
 10 look at photographs of that watch as well, did you  
 11 not?  
 12 A. Yes.  
 13 Q. Did you find any evidence of blood spatter on  
 14 that particular watch?  
 15 A. The only one photograph was again a poor  
 16 photograph, but I saw a smear on the crystal area.  
 17 Q. So consistent with it being taken off after  
 18 this horrible event, right?  
 19 A. Yes.  
 20 Q. Now you learned also that you had said that you  
 21 read the testimony of Dr. Sam Sheppard; is that  
 22 correct?  
 23 A. Yes.  
 24 Q. So you had an opportunity at least to read a  
 25 version of his events that transpired that night; is

1 fingers. So in this particular case you would assume  
 2 that would be after the murder of Marilyn Sheppard.  
 3 Q. And did it occur, the removal of the watch, did  
 4 that occur within the murder room?  
 5 A. I do not know.  
 6 Q. Well, you have indicated that the assailant had  
 7 to still been dripping full of blood at the time that  
 8 he took Dr. Sam's watch; isn't that correct?  
 9 A. I'm saying -- however that was removed, the  
 10 person had bloody -- blood on their hands and that can  
 11 take up to a few minutes to dry.  
 12 Q. Okay.  
 13 A. And did that -- I mean can I look at that -- if  
 14 you show me any watch with a blood stain and smear on  
 15 it, I can't tell you where that watch was when that  
 16 smear was done. So I have no basis to say that.  
 17 Q. Your opinion is that these particular items of  
 18 blood, especially at the 11:00, 12:00 area, these in  
 19 fact what are known as transfer of stains; is that  
 20 correct?  
 21 A. They were consistent with being produced with  
 22 the smearing and/or smear against that watch, that's  
 23 correct.  
 24 Q. So it would have to be a sufficient period of  
 25 time for time not to have elapsed for the blood to

1 that correct?  
 2 A. Yes.  
 3 Q. And, most importantly, you used that in  
 4 applying as far as an explanation as to the blood  
 5 that's on his watch; is that correct?  
 6 A. It was not only that testimony, but he made a  
 7 statement on July 10th, about six days afterwards,  
 8 about an 11-page statement to law enforcement and that  
 9 was a very concise statement about what he said  
 10 occurred.  
 11 Q. Okay. And based upon that information you  
 12 concluded that the stains that appear on Dr. Sam  
 13 Sheppard's watch are not blood spatter but are more  
 14 rather smear; is that correct?  
 15 A. It's not based on his statements at all, it's  
 16 based on the evaluation of the photographs that I  
 17 looked at.  
 18 Q. And so how did that -- those particular objects  
 19 of blood get onto Dr. Sam Sheppard's watch?  
 20 A. Well, the most likely, it's a smeared stain and  
 21 some small stains on the -- and smears on the links.  
 22 The most likely in my opinion is the removal of the  
 23 watch using bloody fingers.  
 24 Q. And when did that take place?  
 25 A. That would be with somebody who had bloody

1 have dried as far as the transfer; is that right?  
 2 A. Yes.  
 3 Q. And that would be what minute amounts of blood,  
 4 that would have to be only over a few minutes period  
 5 of time; is that correct?  
 6 A. If the blood is on the hands for more than --  
 7 you have to do some testing. It depends on how thin  
 8 the blood is. It can dry in a matter of 30 seconds,  
 9 but usually it is more like two or three minutes and  
 10 can be more in crevices of the hand.  
 11 Q. Based upon your evaluation of this particular  
 12 case and the time that you spent on it, based to a  
 13 reasonable degree of scientific certainty, this watch  
 14 had to have been stolen from Dr. Sam Sheppard while he  
 15 was rendered unconscious in the murder room; is that  
 16 correct?  
 17 A. That would be the most consistent time within a  
 18 few minutes of --  
 19 Q. Because we know or you would agree, based on  
 20 your scientific evaluation as a criminalist, that all  
 21 of these other activities that occurred inside of the  
 22 home had to have occurred after the homicide, is that  
 23 correct, as far as the ransacking of the various areas  
 24 inside the house?  
 25 MR. GILBERT: Objection.



THE COURT: Overruled. You

can answer.

A. I can't tell again the timing of that ransacking, exactly when that took place. Could it have taken place before the homicide? It could have. I guess the finding of Marilyn's watch down in the den or in the office area obviously was there after the homicide and otherwise I cannot say scientifically when these things took place.

Q. Otherwise he would have had to make two trips, wouldn't he?

A. I don't know. The perpetrator could have been in there earlier or whatever. There is no way scientifically to tell time of when that occurred by looking at dumped over material.

Q. Well as the criminalist and the time that you spent in this, is it more likely than not that these events, as far as the ransacking and the living room area and also in the doctor's study, as far as this theft offense, that that occurred after the death of Mrs. Sheppard?

A. I can't say more likely than not.

Q. Well you know that Dr. Sheppard claims to have been asleep on the day bed that you have identified earlier in the very same room where a portion of this

ransacking took place.

A. Yes, I understand that.

Q. So that meant then that the burglar or the thief or the bushy-haired fellow was in the same room with Dr. Sam; is that correct?

MR. GILBERT: Objection.

Q. I mean, that's the logic of what you are telling us, right?

MR. GILBERT: Objection.

THE COURT: Overruled.

A. Yes, obviously if that had occurred beforehand, that's true. I'm not saying it did and I didn't say -- there is nothing scientifically by looking at these turned over things to tell which came first.

Q. But we didn't find any type of smears or blood spots or anything on objects that were touched either in the doctor's study or in the desk inside the living room that indicate that there was some handling by a person with bloody hands, right?

A. Let me answer this in this way: The people that did the examination for blood were there very later, in my opinion, they were there a week later and then on the 23rd. So a thorough evaluation was not done right away. I don't know, I did not read, I must say, of any blood being found except for a report of

some smears on a chair in the office. Other than that, I don't see any report of blood being found in these areas. I don't know if they looked for blood but there was none found early on or later on. I believe Mary Cowan and Mr. Dombrowski looked at all these other areas and found 60 drops of blood.

Q. But by the fact that the smear being down in the doctor's study, you would clearly indicate that that smear was placed there after the death of Mrs. Sheppard?

A. Again, we don't know.

Q. But what you can tell us is that both watches were taken, it is more likely than not both watches were taken from Mrs. Sheppard and Dr. Sheppard while they were both inside the murder room; is that correct?

A. I would think that's correct.

Q. Just based on the fact that to have these type of spots on this particular watch the blood had to be fresh in that it didn't have enough time to dry, otherwise you wouldn't have the transfer; is that correct?

A. Yes.

Q. The other possibility is that these are in fact blood spatter, isn't that correct, Mr. Epstein?

A. Others contended that. I do not agree with that.

Q. And if these are determined to be blood spatter, then that would indicate that this watch was in close proximity to Mrs. Sheppard's head at the time that she was sustaining these injuries; isn't that correct?

MR. GILBERT: Objection.

THE COURT: Sustained.

MR. DEVER: May we approach

the bench, Your Honor?

THE COURT: Sure.

(Thereupon, a discussion was had between Court and counsel at sidebar.)

Q. Assuming that there is going to be competent testimony claiming that these particular droplets that appear on this blood are in fact blood spatter, would you agree that, Mr. Epstein, that this watch had to be very close in proximity to the head of Mrs. Sheppard at the time that she was sustaining these severe injuries?

MR. GILBERT: Objection.

THE COURT: Overruled.

A. No, I would not agree.

Q. And why is that, Mr. Epstein?

1 A. Because there is insufficient, any competent,  
2 in my opinion, examiner, there is insufficient pattern  
3 there. There is two or three or four stains that are  
4 smaller in size. They are all associated with the  
5 smearing action.

6 If this watch was in close proximity to Marilyn  
7 Sheppard being bludgeoned, you would expect to find a  
8 pattern of stains, just like I showed the jury to  
9 begin today with impact spatter, all these varied size  
10 stains, a number of them over the whole surface of the  
11 crystal and the links. You would not just find two or  
12 three small stains that are associated with smears.

13 Q. So you would agree that observations of the  
14 entire -- the whole watch back in July of 1954 would  
15 be more telling than just a couple of photographs; is  
16 that correct?

17 A. Well if I could observe the whole watch?

18 Q. Yes.

19 A. Yes.

20 Q. Or a person experienced in dealing with blood,  
21 trained in the use and handling of blood would be able  
22 to identify what took place would be a smear as  
23 opposed to a spatter; isn't that correct?

24 A. The person doing the examination would have to  
25 have experience in blood spatter and to see what

1 A. You may have if he attempted to. I don't know  
2 if he attempted to take it out -- I don't know how it  
3 got on the floor. Could it have fallen out if someone  
4 with bloody hands, wet, bloody hands handled the  
5 wallet? Yes.

6 Q. And you would also expect on those trousers  
7 also if the wallet was removed from Dr. Sheppard that  
8 you would expect also to be transfer of stains of  
9 blood on the rear pocket, would you not?

10 A. These are all making assumptions.

11 Q. Well you made several assumptions as your  
12 testimony here today, have you not?

13 MR. GILBERT: Objection.

14 THE COURT: Overruled. It's  
15 a question.

16 A. The question again?

17 Q. You would expect to find transfer stains --

18 THE COURT: Actually the last  
19 question was whether or not he made several  
20 assumptions.

21 A. Yes.

22 Q. And you would expect that if there was an  
23 attempt to remove the wallet from Dr. Sheppard that  
24 you would have transfer stains of blood from bloody  
25 hands of this assailant on his clothing as well, would

1 overlapping patterns were there. So it would depend  
2 on the experience of the person at that time.

3 Q. So if Dr. Sam Sheppard was robbed of his watch  
4 while he was rendered unconscious in his bedroom; is  
5 that correct?

6 MR. GILBERT: Objection.

7 Q. That's you what believe to be based on your  
8 review of all the information in this case?

9 THE COURT: Overruled on that  
10 basis.

11 A. I don't know if he was robbed, but if the watch  
12 was taken off of his wrist, that's the most consistent  
13 scenario, yes.

14 Q. Now you were also aware that Dr. Sheppard  
15 claimed that when he came to inside the murder room  
16 that he observed his wallet lying on the floor, were  
17 you not?

18 A. Yes.

19 Q. Now there was no evidence of any type of blood  
20 on that particular wallet, was there?

21 A. I don't believe there was.

22 Q. If the assailant who took his watch also  
23 attempted to remove his wallet, one would expect to  
24 have smears of blood on that particular wallet as  
25 well, wouldn't you?

1 you not?

2 A. If the assailant or whoever did this had bloody  
3 hands, it was still wet with blood, you would expect  
4 to find transfer stains.

5 Q. Just as you find transfer stains on the watch,  
6 right?

7 A. Yes.

8 Q. Okay. Now you also had an opportunity to  
9 review all of the facts of this particular case as far  
10 as what happened to that particular watch, did you  
11 not?

12 A. Yes.

13 Q. You learned that the watch was found in what  
14 was known to and tool bag, a green tool bag on the  
15 side of the cliff of Dr. Sheppard's home; is that  
16 correct?

17 A. Yes, that's correct.

18 Q. And were you aware of certain tests that were  
19 performed or inspections of that particular green bag  
20 to determine whether or not there was blood on the  
21 outside of the bag?

22 A. Yes, there was -- Mary Cowan performed one test  
23 on the outside of the bag and found no blood.

24 Q. So if the assailant had taken the watch from  
25 Dr. Sheppard and then placed it into that green bag,

1 there had to have been a sufficient period of time for  
 2 the blood to dry on the assailant so that there would  
 3 not be any transfer on to the bag; is that right?  
 4 A. Well, from my reading of that test I believe  
 5 that the -- that green bag could have been examined  
 6 more thoroughly.  
 7 Q. But for the failure of the authorities to do  
 8 enough of a workup on that particular green bag, we  
 9 are still confronted with the claim or the testimony  
 10 that there was no blood on the outside of the bag; is  
 11 that right?  
 12 A. That's what -- that's correct.  
 13 Q. And as the criminalist then you would infer  
 14 that there was a sufficient period of time for the  
 15 blood to dry prior to the watch being placed into the  
 16 bag; is that correct?  
 17 A. There was no blood, that's why I think there  
 18 should have been more examinations. The amount of  
 19 blood that I see on that photograph would indicate  
 20 that some should have flaked off. If it was dry  
 21 inside that bag and even if it wasn't dry when it went  
 22 in, when it was found it was a sufficient period of  
 23 time have dried that it would have flaked off some  
 24 blood and I would have expected to find that. If it  
 25 was wet with blood, then it would make smears.

1 Q. You would expect the -- this is a poor prop, a  
 2 Dairy Queen bag, you would expect in the handling of  
 3 that particular bag that it would require the  
 4 assailant to make a couple of touchings to the bag to  
 5 accomplish placing the watch inside the bag, would it  
 6 not?  
 7 A. Yes.  
 8 Q. And also Dr. Sheppard's keys are put inside  
 9 that bag as well, are they not?  
 10 A. Yes, I believe his keys and a ring and his  
 11 watch were found in there.  
 12 Q. Those three items were placed in the bag, yet  
 13 there is no blood on that bag, on the outside?  
 14 A. Yes, there is no blood found, that's correct.  
 15 Q. Now the location of the particular bag on the  
 16 side of the cliff is, through the course of your  
 17 investigation did it appear that that was thrown by  
 18 the assailant as he left the home, is that correct, or  
 19 dropped?  
 20 A. I mean, I don't know where it was found but  
 21 from its description someone put those things in and  
 22 someone threw it out in that area. That's what it  
 23 appears to be.  
 24 Q. So at the point in time you were aware that Dr.  
 25 Sheppard had a confrontation down on the beach with

1 this bushy-haired male, were you not?  
 2 A. That's what he said occurred.  
 3 Q. And you read his testimony concerning that?  
 4 A. Yes.  
 5 Q. Is that correct? So with the location of the  
 6 bag and the various inferences that you were drawing  
 7 as a criminalist, it would be fair to assume that the  
 8 bag was thrown prior to the assailant getting to the  
 9 beach; is that correct?  
 10 A. That would be consistent.  
 11 Q. From the location on the cliff, right?  
 12 A. Yes.  
 13 Q. So were you aware at the time that Dr. Sam  
 14 Sheppard first talked to the authorities on July 4th,  
 15 1954, to patrol officer or homicide Detective Schottke  
 16 of the Cleveland Police Department, that he claimed --  
 17 MR. GILBERT: Objection.  
 18 Q. -- that he was --  
 19 MR. GILBERT: Objection.  
 20 Hearsay.  
 21 MR. DEVER: It is not  
 22 hearsay.  
 23 Q. I'm asking if you reviewed the evidence in this  
 24 case. You read the transcripts. Did you read  
 25 Schottke's testimony?

1 A. No.  
 2 Q. Well would it surprise you if Schottke  
 3 testified that Dr. Sam Sheppard said that watch was  
 4 taken from him down on the beach?  
 5 MR. GILBERT: Objection.  
 6 THE COURT: Sustained.  
 7 Q. Did you read Schottke's testimony?  
 8 A. No, I did not.  
 9 Q. So do you know whether or not Dr. Sam Sheppard  
 10 gave a version as far as when that watch was taken  
 11 from him?  
 12 A. Not that I know of.  
 13 Q. Yet your opinion is that this watch was taken  
 14 from Dr. Sam Sheppard while in the murder room because  
 15 this is a smear as opposed to spatter; is that  
 16 correct?  
 17 A. It would have to be fresh blood was on there.  
 18 Q. And we know that there is no other drips or  
 19 drops of blood inside that house that you can tie to  
 20 that murder room; is that correct?  
 21 A. Say that again.  
 22 Q. There are no drops or drips of blood that you  
 23 can tie to the murder room found elsewhere in that  
 24 home?  
 25 A. That's correct.

1 Q. And it would be fair to conclude that if the  
2 assailant was bleeding, he healed up by the time that  
3 he had reached, traveled throughout the house and  
4 reached down to the beach; isn't that correct?

5 A. I don't know that for a fact.

6 Q. Now isn't it a fact, let's show you, this is  
7 page --

8 MR. GILBERT: Objection.  
9 Objection.

10 THE COURT: Overruled at this  
11 point.

12 Q. When you were sitting down with those fellows  
13 from NOVA and you were getting ready to prepare your  
14 documentary and your reenactment, did you discuss the  
15 possibility of how the blood appeared on Dr. Sam  
16 Sheppard's watch?

17 MR. GILBERT: Objection.

18 A. Yes.

19 Q. You did?

20 THE COURT: Whether he  
21 discussed it for NOVA and that's overruled.

22 Q. Did anyone consider or discuss the statement  
23 that Dr. Sam Sheppard made on July 4th, 1954, as to  
24 how he got blood on the watch? Did anyone talk about  
25 that?

1 bushy-haired man?

2 A. I considered that.

3 Q. And to a reasonable degree of scientific  
4 certainty and the evaluation that you have made in  
5 this particular case, the evidence would suggest that  
6 that cannot be borne out by the physical facts that  
7 you testified to; is that correct?

8 A. Correct.

9 Q. So if we were to believe that the watch was  
10 taken from Dr. Sam on the beach, then the assailant  
11 had to go -- either had the green bag with him at that  
12 time and had to take the trouble to put all of these  
13 items in the green bag and then throw them back up the  
14 cliff, or the assailant had to go back upstairs, get  
15 the green bag and then come and put the items in the  
16 bag and then throw it over the cliff; isn't that  
17 correct?

18 A. Just the timing issue?

19 Q. Yes.

20 A. Regardless of -- if it was taken down at the  
21 beach and it was subsequently found in the bag, it  
22 would have to get in the bag and so he had to take the  
23 bag down there or he would have to go retrieve it.

24 Q. Reason and common sense would tell us that  
25 that's inconsistent; isn't that correct?

1 A. There was talk about how that blood got on  
2 there, yes.

3 Q. And it's your claim or your determination that  
4 the assailant removed the watch from Dr. Sam Sheppard  
5 and that explains how the blood is on the watch and  
6 that removal took place inside of the room; is that  
7 correct?

8 A. I'm saying everything is consistent with that,  
9 yes.

10 Q. You never had a chance to look at what Schottke  
11 had to say as far as Dr. Sam's version of events that  
12 took place on July 4th, 1954, in his hospital room at  
13 Bay View Hospital; is that correct?

14 A. That's correct.

15 Q. Showing you -- this is page, Terry, for you,  
16 1993.

17 MR. GILBERT: Objection.  
18 Sidebar.

19 THE COURT: Yes.

20 (Thereupon, a discussion was had  
21 between Court and counsel at sidebar.)

22 THE COURT: Sustained.

23 Q. Did you ever consider the possibility that the  
24 watch was taken from Dr. Sam Sheppard while he was on  
25 the beach in this confrontation and struggle with the

1 MR. GILBERT: Objection.

2 THE COURT: Sustained.

3 Q. In evaluating this case, did you find any  
4 evidence to suggest that there was another person  
5 inside of that house other than Dr. Sam Sheppard, his  
6 son Sam Reese Sheppard, and the victim, Marilyn  
7 Sheppard, at the time of the killing?

8 A. As I have indicated there are two things, two  
9 things that lead me to believe that there was someone  
10 else there, and that is that there is spatter in that  
11 room and someone intercepted that. There does not  
12 appear to be any on his clothing. The second is that  
13 there is a stain of blood in that murder room that is  
14 caused by a different mechanism that can be taken for  
15 further grouping analysis.

16 Q. Okay.

17 A. So those two facts indicate to me that somebody  
18 else was there.

19 Q. And further grouping analysis, it was already  
20 typed to be blood group O; isn't that correct? There  
21 is no other grouping analysis you can do, is there?

22 A. Well, yes, as it turns out if we take it in the  
23 generic, if you are going to take ABO blood grouping,  
24 I'm saying let's say profiling, if you will, there is  
25 ABO, MN, there is enzyme grouping and now there is

1 DNA.  
 2 Q. But if you take the combination of DNA testing  
 3 and blood typing testing, in and of itself the blood  
 4 typing, when one person is an O and they always remain  
 5 to be an O and therefore an A and B, they can all be  
 6 excluded. If you are not an O, you are not there;  
 7 isn't that right?  
 8 A. Yes. If you are an O and blood is in A group,  
 9 you did not contribute that blood.  
 10 Q. And you can dress it up all you want with DNA  
 11 and come in and say you can't include or exclude, but  
 12 the bottom line is if you are an O, you are an O, and  
 13 if you are an A, you are an A; isn't that correct?  
 14 A. That's correct.  
 15 Q. Now when you were sitting down with these folks  
 16 doing this NOVA program, was there any discussion  
 17 about this particular discrepancy, a claim being that  
 18 DNA conclusively establishes that there is another  
 19 person in the room, that we have evidence of an  
 20 assailant, an unknown party, did you talk about that?  
 21 A. Yes.  
 22 Q. And it makes good fiction, it makes good  
 23 entertainment?  
 24 MR. GILBERT: Objection.  
 25 THE COURT: Sustained.

1 Q. But here in this courtroom when you are asked  
 2 to tell these people under oath --  
 3 MR. GILBERT: Objection.  
 4 Q. -- you're telling us --  
 5 THE COURT: Sustained.  
 6 Rephrase your question.  
 7 Q. You were aware that through the course of the  
 8 exhumation that it was determined that the teeth to  
 9 Mrs. Sheppard, the bone to Mrs. Sheppard, there was a  
 10 fractured maxilla; is that correct?  
 11 MR. GILBERT: Objection. He is  
 12 not an expert on jaws.  
 13 THE COURT: The question is  
 14 was he aware of something, did I hit it right?  
 15 MR. DEVER: Yes, thanks,  
 16 Judge.  
 17 THE COURT: Then it is  
 18 overruled. Do you understand the question?  
 19 A. No. Can you explain what you mean by fractured  
 20 maxilla?  
 21 Q. The upper portion of the jaw was in fact  
 22 fractured away; were you aware of that?  
 23 A. I was there and saw the exhumation and the  
 24 mandible, the lower part was separated from the top  
 25 portion and there was a lot of the bones there and

1 actually the head was reconstructed for previous  
 2 burial.  
 3 Q. And during the time of doing this exhumation or  
 4 participating in the exhumation, you were actually in  
 5 the room when the casket was opened; is that correct?  
 6 A. Yes, I was.  
 7 Q. And you donned a surgical mask and you had  
 8 clothing on, did you not?  
 9 A. Yes. Everyone there had protective clothing.  
 10 Q. Covering the shoes; is that correct?  
 11 A. Yes.  
 12 Q. And Dr. Balraj also made you -- they took an  
 13 oral swab of your saliva to get your DNA profile?  
 14 A. Yes, everyone who participated.  
 15 Q. So there could be no concern about  
 16 contamination; is that correct?  
 17 A. That's correct.  
 18 Q. And did you find in your participation of that  
 19 exhumation that as far as scientific value, as far as  
 20 help to go uncover facts that could be presented to  
 21 this jury, did you find that to be a worthwhile  
 22 scientific venture?  
 23 MR. GILBERT: Objection.  
 24 THE COURT: Overruled.  
 25 A. In general, yes, I guess the real specifics

1 need to be addressed by some other experts that were  
 2 there dealing with some other things and blood  
 3 spatter, in particular I believe DNA and some of the  
 4 dental work. I believe it was a good exercise, yes.  
 5 Q. And even how disturbing it was to disturb the  
 6 dead after all of these years, that there was some  
 7 value that was gathered as a result of that; is that  
 8 correct, Mr. Epstein?  
 9 A. Yes.  
 10 Q. Then finally then, in the analysis that you did  
 11 inside the murder room, the tests that were performed  
 12 by Dr. Paul Leland Kirk were, as I have indicated  
 13 before, seven months after the homicide; is that  
 14 correct?  
 15 A. Yes, July 4th to he was there January 22nd.  
 16 Q. Did you know that those particular doors were  
 17 removed and had been transported to the coroner's  
 18 office?  
 19 A. Yes, they were removed and then taken back to  
 20 the home.  
 21 Q. And were you aware that there appeared to be  
 22 some dusting of that particular wardrobe door or  
 23 closet door, sorry, that those particular doors for an  
 24 attempt to gather fingerprints?  
 25 A. Yes.

1 Q. Then finally, you can tell based on the spatter  
2 pattern that is on those particular doors that the  
3 doors were in the position that they are in that the  
4 door to the room is in fact open and the closet door  
5 is in fact closed at the time that Mrs. Sheppard met  
6 her death; is that correct?

7 A. Yes, the crime scene photographs show that.

8 MR. DEVER: Okay. I don't  
9 have anything further. Thank you.

10 THE COURT: Redirect.

11 - - -

12 REDIRECT EXAMINATION OF BARTON PAUL EPSTEIN

13 BY MR. GILBERT:

14 Q. I promise I won't call you doctor.

15 MR. DEVER: You started it.

16 Q. Mr. Epstein, the science of blood spatter  
17 pattern analysis is an emerging field, is it not? It  
18 was an emerging field in the '50s and the '60s; is  
19 that correct?

20 A. In the '50s and '60s in the United States it  
21 surely had not been used. Other countries may have  
22 had a little.

23 Q. And Dr. Kirk was a pioneer in developing the  
24 methodology, the techniques and approaches to  
25 understanding blood stain pattern analysis; is that

1 crime was committed where there was fingerprint powder  
2 on it; is that right?

3 A. Yes.

4 Q. Do you know whether anyone from the defense  
5 side or the family was allowed in that room prior to  
6 the first trial in 1954 to do a thorough analysis?

7 MR. DEVER: Objection.

8 THE COURT: Overruled.

9 A. I don't believe any scientific person was  
10 allowed in.

11 Q. Now isn't it true that you were able to see  
12 that unusual large spot on the photographs that were  
13 taken that morning; is that right?

14 A. Yes, the crime scene photographs show that  
15 stain clearly.

16 Q. So when Mr. Dever showed you the photograph  
17 from seven months later, was the same spot on that  
18 closet door?

19 A. Yes, it's the same spot.

20 Q. Now we talked about the trail, the apparent  
21 trail. Isn't it true that the reason that you could  
22 not tell whether there was actually a trail connected  
23 to, with certainty, to the crime scene is because not  
24 enough of those spots were actually tested for human  
25 blood?

1 correct?

2 A. That's correct.

3 Q. Was Dr. Kirk perfect in every way in terms of  
4 the work that he did back in 1954?

5 A. No, he was not perfect.

6 Q. None of us are perfect, right?

7 A. I don't believe so.

8 Q. And did anybody from the Cuyahoga County  
9 prosecutor's office, as far as you know -- I'm sorry,  
10 coroner's office, or the Cleveland Police Department  
11 or the Cuyahoga County Sheriff's Department, or the  
12 Bay Village Police Department or any other agency of  
13 law enforcement investigating the homicide of Marilyn  
14 Sheppard in 1954 do any work in connection with blood  
15 stain pattern analysis?

16 A. Not that I am aware of, no.

17 Q. And as you sit here today in the year 2000,  
18 given the nature of this homicide, would you say that  
19 blood stain pattern analysis is a critical component  
20 to understanding what happened that day?

21 A. Yes, I do.

22 Q. Now with respect to the wardrobe or the color  
23 of the stain that we have been referring to, Mr. Dever  
24 asked you about seeing the spots on the photograph  
25 that Dr. Kirk photographed seven months after the

1 A. Not only that, as I indicated a number of  
2 times, to tell anything about this apparent trail you  
3 would have to determine that it was human blood and  
4 whose group blood it was. Today we would do DNA and  
5 see if we can determine whose blood it is. Without  
6 knowing that, we cannot make any valid determination.  
7 So that's why I would have suggested and would have at  
8 the time done more blood grouping on selected stains.

9 Q. Now in connection with this, the trail, there  
10 was a question brought up to you about the size of the  
11 spots and you indicated that generally spots from an  
12 active bleeding source are of a certain size; is that  
13 right?

14 A. Yes.

15 Q. But don't they -- can they vary?

16 A. They can vary.

17 Q. What are the reasons for why they can vary?

18 A. Well, they can vary. However, I must say that  
19 if it is coming just from a bleeding source, an active  
20 drip, drip from an open wound with no interference in  
21 hitting a hard surface and going at least two, three  
22 feet from the ground, they will make large stains.  
23 But the variation can come from stains hitting  
24 something else while coming down and breaking up like  
25 clothing or a shoe or some other surface. But without

1 that, you would expect to see large stains.  
 2 Q. And in your experience of, has it been over 30  
 3 years?  
 4 A. Yes, it has.  
 5 Q. Is it not true that the crime event is a very  
 6 dynamic and frantic and active event?  
 7 A. Yes. But in nature they are usually not just  
 8 someone coming up and hitting and that's it.  
 9 Q. Someone bleeding in the hand doesn't calmly  
 10 just walk to make sure that the blood drops are of  
 11 consistent size and in a consistent pattern, do they?  
 12 A. No. It is generally more activity and is  
 13 varied and you have no real standard way with those,  
 14 when these types of stains are made.  
 15 Q. In fact, the nature of the surface of the floor  
 16 or the object that an active bleeding source can  
 17 deposit blood on also may have an effect on the size  
 18 of the drop; is that correct?  
 19 A. Yes, it has dramatic effect.  
 20 Q. So the fact that we are talking about size  
 21 alone of the stain, is that solely determinative of  
 22 whether or not it comes from an active bleeding wound?  
 23 A. I think we are going around in circles here,  
 24 but it isn't the only factor. There is the size of  
 25 the stain, the length of this apparent trail, but most

1 important it's determining beforehand what this trail  
 2 is made out of, and it's really virtually impossible  
 3 to say anything more than we don't know unless you  
 4 know whose blood is in this trail.  
 5 Q. Now with respect to the -- there has been some  
 6 discussion about ABO typing. Dr. Kirk attempted to do  
 7 typing on that large stain; is that right?  
 8 A. Yes.  
 9 Q. And he determined that it was type O; is that  
 10 right?  
 11 A. Yes.  
 12 Q. Was Dr. Kirk criticized by the State of Ohio  
 13 for his findings with respect to the determination of  
 14 the blood typing on that stain --  
 15 A. Was he criticized?  
 16 Q. Do you know that?  
 17 A. I don't know.  
 18 Q. But he was criticized for the test that he did  
 19 as far as determining whether that stain was of a  
 20 different type than the blood of Marilyn Sheppard; is  
 21 that right?  
 22 A. Yes, he was challenged by others about his  
 23 technique.  
 24 Q. Isn't it true that the classification and  
 25 typing of blood back in the 1950s is not as

1 sophisticated as it is today?  
 2 A. That's correct. With new enzyme grouping and  
 3 DNA, if that's what you are referring to, there is no  
 4 doubt that we can do a lot more with a lot less sample  
 5 today.  
 6 Q. And if you were to have that sample available  
 7 in the year 1999 or 2000 or '97, '98, would you put  
 8 more credence on DNA testing in terms of determining  
 9 the origin of that blood as opposed to tests that were  
 10 done on dry blood back in 1955?  
 11 A. Yes. And let me add that in the state crime  
 12 laboratory in Minnesota there is no ABO blood grouping  
 13 done any more, it was dropped about three or four  
 14 years ago because they are going directly to the more  
 15 sophisticated and reliable DNA.  
 16 Q. Now the notion that and the opinion that you  
 17 have that that large spot came from a different  
 18 mechanism than the spatter originating from the  
 19 beating of Marilyn Sheppard is based on what, as a  
 20 blood stain pattern analyst, what is your opinion that  
 21 you are willing to defend in this courtroom today that  
 22 that spot comes from a different source or different  
 23 mechanism?  
 24 A. It's the size and shape of that stain. It's an  
 25 inch in diameter and that cannot be produced by the

1 beating of Marilyn Sheppard. Those stains would have  
 2 been smaller. This stain could not have been produced  
 3 by that mechanism by impact, it had to be a large  
 4 amount of blood. It was then deposited on the door  
 5 and that's what is significant there, and others I  
 6 believe you will find in this room, this courtroom  
 7 will say the same thing.  
 8 Q. And as you sit here in 2000, the opinion of Dr.  
 9 Kirk in 1955 who believed that that stain came from a  
 10 different mechanism or different source than the  
 11 impact spatter of Marilyn Sheppard -- of the Marilyn  
 12 Sheppard beating, is that opinion that you have, does  
 13 it depend on what Kirk says back then? Does your  
 14 opinion depend on what he said?  
 15 A. No.  
 16 Q. Are you making this opinion totally independent  
 17 of what Paul Kirk either said in a trial or said in an  
 18 affidavit or anywhere else, are you making this  
 19 opinion independent of what he said?  
 20 A. It's based on mainly the photographs that I  
 21 have received. I have seen this described in his  
 22 affidavit but up until about a year and a half ago I  
 23 did not see any -- I hadn't seen any of these crime  
 24 scene photographs and I have not seen the photographs  
 25 of the large stain, I only heard it described. So

1 really it was until I received these photographs to  
 2 examine that I then approached this case as an  
 3 independent evaluation, taking Dr. Kirk's word but  
 4 also Mary Cowan's and others.  
 5 Q. And you don't necessarily agree with Dr. Kirk  
 6 regarding whether it was a left-handed or right-handed  
 7 person based on the blood spatter?  
 8 A. Based on the blood spatter I would, in essence,  
 9 disagree with what he found.  
 10 Q. You don't necessarily agree or disagree with  
 11 his analysis of whether the teeth were fractured as a  
 12 result of a bite?  
 13 A. That's correct.  
 14 Q. So even though you were a student of Dr. Paul  
 15 Kirk and respected him --  
 16 A. Yes.  
 17 Q. -- and know of his contributions, you are not  
 18 coming in front of this jury and being, you know, a  
 19 disciple of Paul Kirk and arguing on every little  
 20 point that he might have made in this case, are you?  
 21 A. No. In fact, I have found things that I would  
 22 disagree with him and have stated so. I'm surely not  
 23 here to, if you will, rubber stamp everything that Dr.  
 24 Paul Kirk did.  
 25 Q. And in spite of things that you might disagree,

1 do you disagree with him on one of the central points  
 2 that you made today after eight hours on the stand,  
 3 that there was an individual in that room intercepting  
 4 that blood spatter coming from Marilyn Sheppard being  
 5 attacked?  
 6 A. No, I would not. As I indicated, that was  
 7 probably one of the best observations with respect to  
 8 blood spatter, the position of the attacker and what  
 9 you would expect to find on their clothing and this  
 10 large stain. So those two major observations with  
 11 respect to blood spatter were critical in this case.  
 12 Q. And if Dr. Sheppard was wearing those pants, he  
 13 could not have been the one to intercept that blood,  
 14 is that correct, coming from her body?  
 15 A. That is correct. I would have expected to find  
 16 blood on his pants.  
 17 Q. And as far as this -- the NOVA, what is NOVA as  
 18 a program on PBS, do you know?  
 19 A. NOVA, I think everyone has heard of, is by the  
 20 Public Broadcasting System, a series of many programs  
 21 to present scientific material to the general public  
 22 on a variety of subjects.  
 23 Q. Is it tantamount to Hard Copy or Inside Edition  
 24 or the Jerry Springer show?  
 25 A. I believe NOVA, the PBS program, is highly

1 respected by its viewers and people in the scientific  
 2 community.  
 3 Q. And why did you participate in this project?  
 4 What interest did you feel you were furthering by  
 5 lending your 35 years experience as a blood stain  
 6 pattern expert and criminalist in being on NOVA?  
 7 A. I believe because of my experience and teaching  
 8 in this area that I could -- and being familiar with  
 9 this case in a teaching aspect with the methods that  
 10 were used, I could -- I was in a position that I could  
 11 help demonstrate as well as many, maybe better than  
 12 some, the blood spatter principles involved and that's  
 13 why I got involved.  
 14 Q. And you mentioned that there were other people  
 15 that participated, you mentioned some of their names.  
 16 Have you seen the NOVA show? Did you get a chance to  
 17 watch it?  
 18 A. I did see the final show, yes.  
 19 Q. Would you look around the room and tell me who  
 20 in this room was on that NOVA show in addition to me?  
 21 Did you see anybody there sitting at this table here?  
 22 A. Not on that table but --  
 23 Q. Do you recognize --  
 24 A. Oh, yes, Mr. Mason was on the show as well as  
 25 Sam Reese.

1 Q. So it wasn't a one-sided presentation of the  
 2 Sheppard case, was it?  
 3 A. No, there was some opposing views expressed  
 4 verbally and some scientifically.  
 5 Q. You would not jeopardize your reputation of 35  
 6 years and walk in and go on a national respected  
 7 science program and misrepresent anything, would you?  
 8 A. Not at all.  
 9 Q. Just a few other things.  
 10 The pillow that you saw, you can't say anything  
 11 more than what you said, that that's where it was when  
 12 it -- when the killing stopped; is that right?  
 13 A. That's correct.  
 14 Q. And there was blood stained pattern -- there  
 15 was blood impact stains on both sides; is that right?  
 16 A. Yes, it appears both sides were exposed to some  
 17 part.  
 18 Q. Could you say there was any article or  
 19 instrument imprinted on that pillow?  
 20 A. Not at all, and if anyone does, they should be  
 21 able to reproduce it for you.  
 22 Q. And Mr. Dever asked you, well, if you would  
 23 expect that there would be blood here, you would  
 24 expect there to be blood there, you would expect blood  
 25 on the green bag, you would expect blood on the



1 telephone, on the wallet and all these things. How  
2 would you characterize, can you say that a killer  
3 involved in this case who was bleeding, whether one  
4 way or the other, whether there should be blood or not  
5 blood, can you say?

6 A. It's very, very difficult to say one way or the  
7 other. If you give hypotheticals, which are given a  
8 person had bloody hands and they touched something,  
9 would you expect blood? Yes is the answer. But you  
10 don't know all those situations and so you don't know  
11 if there would be blood. Is blood going to dry on the  
12 hands before people touch things? That's a  
13 possibility, too.

14 Q. If you were to speculate, you can come up with  
15 a lot of reasons why there would be blood on those  
16 items; is that right?

17 A. Why there would not be?

18 Q. Why there would not be blood.

19 A. Yes.

20 Q. As a scientist, do you want to speculate?

21 A. I don't think anyone here wants me to  
22 speculate.

23 Q. Are you speculating about your opinion  
24 regarding the matter of the killer having blood all  
25 over them?

1 A. No, I am not.

2 Q. Are you speculating about whether those pants  
3 should have had spatter all over the place?

4 A. They should have had a lot of spatter.

5 Q. Are you speculating about that spot on the  
6 closet door which would have been consistent with an  
7 active bleeding person's depositing there?

8 A. That has clearly come from a different  
9 mechanism and that's most likely.

10 MR. GILBERT: Thank you. I  
11 have no further questions.

12 - - - -

13 RE-CROSS-EXAMINATION OF BARTON PAUL EPSTEIN

14 BY MR. DEVER:

15 Q. Mr. Epstein, you would agree that that blood  
16 typing on the wardrobe door was in fact typed to be  
17 blood type O, and that was done by Kirk as well as by  
18 Mary Cowan; isn't that correct?

19 A. I know Dr. Kirk did -- can you show me?

20 Q. Have you read Mary Cowan's testimony?

21 A. Yes, I have. I can't recall right now if she  
22 did.

23 Q. And the bottom line is, as we sit here today,  
24 blood type O on wardrobe door, Richard Eberling is  
25 type A, that is not Richard Eberling's blood on that

1 door; is that correct?

2 A. If that's the situation, O cannot be A.

3 Q. That's basic science 101; isn't that right?

4 A. It's basic serology, yes.

5 Q. We could do all of the DQ-Alpha, DNA testing  
6 that we want to do, but you can't get over the blood  
7 typing; is that correct?

8 A. If what you're saying, A cannot be O and O  
9 cannot be A.

10 Q. So far as any evidence of Richard Eberling  
11 being in that room, there is nada, zero evidence of  
12 him being there; is that correct?

13 MR. GILBERT: Objection.

14 THE COURT: Overruled.

15 Q. From your evaluation, your 200, 300 hours and  
16 what you were asked to look at and your reputation and  
17 your expertise, there is no evidence to put Richard  
18 Eberling in that bedroom; isn't that correct?

19 A. As I indicated before, I do not know who the  
20 killer is. I didn't do the blood grouping, I haven't  
21 done the DNA work. All I know is that stain had to be  
22 taken and do further examinations. If it is the same  
23 or different, I think that would be very significant.

24 Q. And finally, a lot of questions of Mr. Gilbert  
25 had asked you, you were reluctant and indicated that

1 you don't know the answer to those --

2 MR. GILBERT: Objection.

3 Q. -- is that correct?

4 THE COURT: He is on cross  
5 here. Overruled. Whether or not that's an  
6 accurate statement.

7 Q. You were unwilling to speculate; is that  
8 correct?

9 A. Yes. I am not here nor does the jury want me  
10 to guess at anything.

11 Q. But Dr. Paul Leland Kirk in 1966 was  
12 speculating on a number of things that you don't agree  
13 with here today; isn't that correct?

14 A. Well speculating or coming to a different  
15 conclusion, he may have. But I -- I guess you would  
16 have to be specific there.

17 Q. Bit her assailant, left-handed killer, those  
18 kind of things, right, assailant was bleeding?

19 A. I already have indicated I do not agree with  
20 those conclusions.

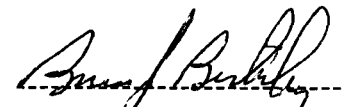
21 Q. All right.

22 You are saying that you don't agree to a  
23 reasonable degree of scientific certainty; is that  
24 correct?

25 A. Yes.

## C E R T I F I C A T E

I, Bruce J. Bishilany, Official Court Reporter for the Court of Common Pleas, Cuyahoga County, Ohio, do hereby certify that as such reporter I took down in stenotype all of the proceedings had in said Court of Common Pleas in the above-entitled cause; that I have transcribed my said stenotype notes into typewritten form, as appears in the foregoing Transcript of Proceedings; that said transcript is a complete record of the proceedings had in the trial of said cause and constitutes a true and correct Transcript of Proceedings had therein.



Bruce J. Bishilany, RDR/CRR  
Official Court Reporter  
Cuyahoga County, Ohio

Q. So Kirk was wrong. Thank you.  
MR. GILBERT: Was that a question, Mr. Dever --  
Q. Isn't that correct?  
MR. GILBERT: -- or is that a statement.  
THE COURT: Kirk was wrong, is that correct, I think was the question.  
MR. DEVER: I will withdraw that.  
THE COURT: That's good. That's stricken then, that last comment. Anything further?  
MR. GILBERT: No.  
THE COURT: You are excused, Mr. Epstein.  
Ladies and gentlemen, you are excused for the evening and be ready to be called into the courtroom at 9:00.  
Do not discuss this case among yourselves, do not permit anyone to discuss it with you or in your presence. You are instructed not to form or express an opinion on this case until it is finally submitted to you.

television or listen to the radio. You know the standard cautionary instruction as you leave for the evening.

(Thereupon, Court was adjourned.)

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**'50s**

[3] 93:24 177:18 177:20

**'54**

[1] 75:12

**'60s**

[4] 60:22 89:15 177:18 177:20

**65**

[2] 8:21 24:8

**'80s**

[2] 5:13 8:2

**'97**

[1] 183:7

**'98**

[1] 183:7

**1****1**

[2] 3:1 89:1

**100-page**

[1] 9:14

**101**

[1] 191:3

**1077**

[1] 54:10

**1087**

[1] 16:7

**10th**

[1] 154:7

**11**

[1] 17:3

**11-page**

[1] 154:8

**1104**

[2] 45:10 140:5

**1105**

[2] 46:19 140:5 141:16

**1108**

[1] 78:7

**1109**

[1] 76:23

**1122**

[1] 38:5

**1126**

[1] 33:17

**1128**

[2] 26:25 37:1

**1129**

[1] 32:7

**1130**

[1] 27:4

**1135**

[2] 32:14 114:13

**1138**

[1] 43:1

**11:00**

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**11th**

[1] 91:18

**12**

[1] 127:25

**126**

[1] 81:8

**12:00**

[2] 12:2 155:18

**13**

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**15**

[4] 6:16 16:6 63:21 136:11

**150**

[2] 7:6 10:11

**1500**

[2] 7:3 10:10

**17**

[1] 94:19

**173**

[2] 80:3 80:10

**178**

[1] 17:12

**18**

[6] 20:24 33:6 39:19 39:22 51:2 111:

**25****19**

[1] 111:16

**1950s**

[2] 60:20 182:25

**1954**

[19] 25:22 69:25 73:9 79:8 79:19 82:

6 82:25 101:24 111:4 112:8 115:1 134:

6 161:14 167:15 169:23 170:12 178:4

178:14 175:6

**1955**

[8] 24:8 25:14 25:19 114:22 115:2

129:5 183:10 184:8

**1964**

[2] 8:21 24:7

**1965**

[1] 4:22

**1966**

[14] 5:19 9:1 79:4 79:15 79:20 80:11

81:16 81:17 82:4 123:4 125:18 128:14

129:7 192:11

**1968**

[1] 118:17

**1970s**

[2] 5:9 8:2

**1980s**

[2] 5:13 6:5

**1983**

[1] 94:19

**1991**

[1] 8:9

**1993**

[1] 170:16

**1995**

[2] 6:9 25:13

**1998**

[2] 25:20 26:3

**1999**

[2] 26:10 183:7

**1:35**

[1] 88:16

**2****20**

[3] 16:1 63:21 75:7

**200**

[8] 7:6 10:12 26:20 66:14 121:10 140:

21 151:6 191:15

**2000**

[7] 2:16 2:17 3:1 8:11 178:17 183:7

**20B**

[1] 2:19

**22nd**

[2] 51:20 176:15

**23rd**

[3] 51:20 106:13 158:23

**24**

[1] 39:10

**25**

[1] 54:6

**250**

[2] 57:14 58:2

**253**

[2] 55:6 55:7

**254**

[2] 56:13 56:17

**255**

[2] 55:20 56:5

**26**

[2] 52:25 54:7

**275**

[2] 136:19 136:20

**29**

[1] 83:6

**3****3-96**

[1] 136:25

**30**

[9] 7:7 18:18 18:23 19:1 39:11 75:5

83:6 186:8 181:2

**30-plus**

[1] 5:3

**300**

[10] 26:22 27:6 31:11 31:14 36:14 86:

14 101:24 148:22 151:6 191:15

**301**

[2] 45:5 49:9

**302**

[3] 42:11 44:20 45:22

**303**

[3] 36:1 36:6 140:9

**305**

[4] 53:10 53:17 53:23 146:8

**306**

[1] 53:20

**3077**

[1] 55:6

**308**

[2] 9:11 9:13

**309**

[1] 56:10

**31**

[1] 2:17

**311**

[1] 56:18

**312**

[1] 57:2

**313**

[1] 57:7

**315**

[1] 66:19

**317**

[1] 70:13

**32**

[2] 5:21 6:13

**35**

[2] 187:5 188:5

**360**

[1] 20:20

**4****40**

[3] 10:16 93:15 121:1

**40-hour**

[1] 16:10

**44**

[2] 20:19 82:7

**45**

[1] 29:1

**4520**

[1] 4:9

**4th**

[6] 71:14 134:6 167:14 169:23 170:12

176:15

**5****50**

[1] 25:6

**57**

[1] 4:16

**5th**

[2] 64:25 73:8

**6****60**

[4] 52:3 58:10 58:21 159:6

**8****80**

[1] 25:7

**82**

[1] 47:20

**9****90**

[4] 19:23 19:24 37:7 116:16

**96-312322-CV**

[2] 1:8 2:8

**9:00**

[1] 193:19

**A****A.D.**

[1] 2:16

**AB**

[1] 120:11

**Abdomen**

[6] 76:25 77:5 78:8 78:9 78:17 146:13

**Able**

[32] 6:14 13:19 14:16 17:24 29:13 34:

21 40:19 48:20 51:12 79:6 80:2 80:19

85:5 93:5 93:20 102:9 103:17 103:23

112:14 120:4 123:4 123:5 123:13 124:

15 134:1 133:17 130:1 140:22 140:24

161:21 174:11 188:21

**ABO**

[16] 6:2 60:22 61:8 61:18 74:11 74:

14 120:5 120:15 121:8 126:12 126:23

138:24 173:23 172:25 182:6 183:12

**Above-entitled**

[1] 195:7

**Abruptly**

[1] 21:19

**Absence**

[1] 88:8

**Absolutely**

[3] 48:16 65:8 95:1

**Absorb**

[1] 103:22

**Absorbed**

[1] 66:3

**Absorbent**

[1] 189:6

**Academy**

[1] 7:21

**Accelerated**

[4] 94:19 91:20 104:12 108:20

**Accelerating**

[2] 92:5 92:9

**Accepted**

[1] 123:20

**Accomplish**

[2] 93:17 166:5

**Accomplished**

[1] 145:4

**Accordingly**

[1] 38:17

**Account**

[1] 135:8

**Accumulated**

[2] 44:1 132:6

**Accumulation**

[2] 43:21 117:7

**Accuracy**

[1] 97:2

**Accurate**

[4] 122:14 134:13 134:16 192:6

**Acknowledge**

[1] 128:13

**Acknowledges**

[1] 130:22

[3] 17:22 19:3 27:24

## Aids

[1] 17:21

## Air

[2] 26:16 71:11

## ALAN

[2] 1:5 2:4

## Alive

[1] 118:16

## Allegedly

[1] 1:7

## Allow

[3] 30:1 68:17 128:21

## Allowed

[4] 77:18 146:3 179:5 179:10

## Almost

[7] 16:13 43:3 47:12 47:25 63:22 116:16 117:4

## Alone

[1] 181:21

## Alpha

[1] 291:5

## Altered

[1] 148:16

## American

[2] 7:21 8:10

## Amount

[15] 43:25 47:5 63:20 84:16 87:15 92:12 101:8 119:17 119:23 124:3 141:10 141:11 142:11 165:18 184:4

## Amounts

[1] 156:3

## Analysis

[33] 8:18 10:4 10:7 12:7 15:9 15:22 15:26 16:9 16:21 17:4 17:16 34:6 24:24 25:10 41:17 43:8 90:3 90:18 93:22 117:5 123:19 127:11 140:23 172:15 172:19 172:21 176:10 177:17 177:25 178:15 178:19 179:6 185:11

## Analyst

[4] 5:23 49:4 73:2 183:20

## Analysts

[1] 7:23

## Angle

[5] 17:25 18:9 18:11 18:17 19:25

## Animal

[1] 113:1

## Ankles

[1] 148:1

## Annual

[2] 11:1 11:8

## Annually

[3] 9:9 9:15 11:15

## Answer

[10] 25:1 127:7 132:16 135:15 138:25 139:12 157:2 158:20 189:9 192:1

## Anti

[1] 85:4

## Anti-Sheppard

[1] 85:4

## Anticipating

[1] 35:15

## Apart

[2] 45:20 45:25

## Apparent

[14] 47:9 47:11 47:15 47:17 47:24 59:20 54:24 70:15 77:23 83:19 147:9 179:20 180:2 181:25

## Appear

[8] 31:6 137:10 143:5 146:12 154:12 160:17 166:17 172:12

## Appearance

[4] 26:14 47:12 55:25 63:2

## APPEARANCES

[1] 1:15

## Appeared

[4] 42:18 133:13 169:15 176:21

## Application

[2] 4:24 5:14

## Applied

[5] 90:25 91:20 92:12 106:23 107:4

## Applies

[1] 110:22

## Apply

[1] 146:4

## Applying

[1] 154:4

## Appreciate

[1] 77:19

## Appreciation

[2] 25:5 117:15

## Apprehension

[1] 6:18

## Approach

[6] 12:21 30:3 72:20 74:13 76:16 160:

10

## Approached

[1] 185:2

## Approaches

[1] 177:24

## Appropriately

[1] 148:8

## Approximate

[2] 58:21 139:8

## Arbitrary

[1] 101:6

## Area

[90] 4:24 5:25 6:5 8:15 8:18 8:19 8:23 9:9 10:3 10:7 12:7 12:24 16:2 16:7 16:17 20:16 21:9 21:9 21:15 22:19 23:20 24:6 27:21 31:17 31:18 32:19 33:7 33:8 36:15 37:14 37:21 39:1 39:9 39:9 39:14 39:15 39:15 39:15 41:14 39:17 45:22 45:24 46:14 47:3 47:25 51:6 55:10 56:12 56:12 57:23 67:2 67:5 70:15 71:2 71:2 71:21 71:3 73:14 77:23 78:7 82:11 83:17 83:21 90:10 92:17 95:25 106:3 107:4 107:6 108:14 109:13 112:12 115:21 117:24 123:19 130:23 140:14 141:7 141:25 143:1 143:4 146:4 149:16 153:16 155:18 157:7 157:19 166:22 187:8

## Areas

[26] 16:25 37:2 47:3 51:8 52:3 60:17 63:15 67:11 67:12 67:14 83:15 84:24 85:3 86:4 86:12 91:7 96:25 98:8 98:10 108:9 112:12 142:9 142:9 156:23 159:3 159:6

## Arguing

[1] 185:19

## Arm

[7] 77:1 77:7 77:8 77:11 99:21 100:11 148:12

## Article

[1] 188:18

## Ascertain

[3] 112:15 139:1 139:3

## Asleep

[4] 54:23 55:11 135:6 157:24

## Aspect

[1] 187:9

## Assailant

[26] 117:1 118:7 125:20 129:22 130:25 131:9 131:16 132:13 139:3 152:17 155:6 162:22 163:25 164:2 164:24 165:2 166:4 166:18 167:9 169:3 170:4 171:10 171:14 173:20 192:17 192:18

## Assault

[8] 35:4 38:19 134:15 134:18 179:11 139:20 139:23 140:16

## Assaulted

[1] 139:9

## Assaults

[1] 17:6

## Assign

[1] 62:9

## Assist

[1] 29:22

## Assistant

[1] 6:6

## Associated

[9] 62:10 64:11 64:19 72:7 146:10 146:21 147:4 161:4 161:12

## Association

[7] 7:16 7:22 9:14 11:3 11:10 11:17 16:8

## Associations

[1] 11:7

## Assume

[3] 62:12 155:1 167:7

## Assumes

[1] 65:3

## Assuming

[5] 62:5 64:5 112:13 122:6 160:15

## Assumption

[1] 134:21

## Assumptions

[3] 163:10 163:11 163:20

## Assure

[1] 64:4

## Attached

[1] 108:20

## Attack

[11] 31:9 34:25 35:24 38:25 40:3 40:8 46:5 46:7 46:11 47:1 137:15

## Attacked

[1] 186:5

## Attacker

[14] 35:24 38:18 38:20 39:1 39:7 39:12 39:17 40:7 40:9 41:17 42:3 42:14 130:9 186:8

## Attempt

[7] 61:22 74:2 74:6 95:24 104:23 163:23 176:24

## Attempted

[8] 61:18 61:19 61:25 74:11 162:23 163:3 163:2 182:6

## Attempting

[2] 61:24 105:1

## Attempts

[3] 74:15 105:7 106:15

## Attend

[1] 6:9

## Attended

[3] 5:1 5:4 5:8

## Attention

[3] 47:8 49:6 90:13

## Attorney

[2] 12:18 98:3

## Authorities

[3] 69:17 165:7 167:14

## Authors

[1] 127:28

## Automobile

[1] 18:7

## Available

[4] 14:10 27:15 46:23 183:6

## Averaged

[1] 105:17

## Averaging

[1] 53:7

## Awakened

[1] 84:25

## Aware

[29] 41:21 51:9 60:24 61:7 69:5 69:11 81:20 94:17 102:17 102:19 104:22 113:22 115:13 130:7 130:17 131:3 131:5 131:6 131:8 152:5 162:14 164:18 166:4 167:13 174:7 174:14 174:22 176:1 178:16

## B

## Bachelor

[4] 4:21 4:23 89:12 89:23

## Backboard

[1] 110:22

## Background

[4] 4:20 5:17 8:15 8:17

## Bag

[34] 56:21 69:6 69:20 69:21 164:14 164:14 164:19 164:21 164:23 164:25 165:3 165:5 165:8 165:10 165:16 165:21 166:2 166:3 166:4 166:5 166:9 166:12 166:13 166:15 167:6 167:8 171:11 171:13 171:15 171:16 171:21 171:22 171:23 188:25

## Bailey

[2] 98:20 98:21

## Bailiff

[1] 41:1

## Ball

[1] 98:15

## Balraj

[1] 175:12

## Band

[3] 71:2 80:3 80:11

## Banister

[1] 10:24

## Bank

[1] 69:7

## Bar

[1] 141:4

## Barry

[1] 8:2

## Barton

[7] 1:15 3:23 4:2 4:7 89:7 177:12 190:13

## Base

[1] 102:13

## Baseball

[3] 100:16 131:11 131:17

## Based

[30] 29:12 46:12 50:15 61:15 86:16 87:6 105:21 105:23 107:1 112:14 129:18 137:7 140:22 145:16 149:24 152:9 152:24 154:11 154:15 154:16 156:11 156:12 156:15 159:18 162:7 177:1 183:19 184:20 185:7 185:8

## Basement

[13] 51:24 57:7 57:9 59:6 61:5 110:11 110:15 111:10 111:24 112:7 112:9 112:12 112:19

## Bases

[1] 34:5

## Basic

[7] 41:5 91:6 92:20 94:9 94:11 191:3 191:4

## Basis

[12] 113:20 114:7 114:9 124:2 125:24 132:10 138:16 153:4 155:16 162:10

## Bay

[2] 170:13 178:12

## Beach

[11] 69:8 84:8 85:1 85:2 166:25 167:9 168:4 169:4 170:25 171:10 171:21

## Beaten

[4] 35:2 35:13 139:15 150:16

## Beating

[13] 33:14 46:1 87:20 115:11 137:21 138:3 138:7 138:9 138:13 139:14 183:19 184:1 184:12

## Became

[4] 6:4 6:6 25:17 94:13

## Become

[3] 71:20 90:9 10

[31] 30:22 31:4 44:18 62:12 62:15 65:  
15 45:18 66:10 66:12 78:1 10:11 10:3  
4 104:4 108:18 115:6 117:5 117:6 117:  
10 118:7 131:15 139:14 139:21 169:2  
180:12 181:13 181:9 181:16 181:22  
189:7 190:7 192:18

## Block

[2] 38:1 37:20

## Blocking

[1] 133:18

## Blood

[557] 5:11 5:15 6:1 6:2 6:3 7:23 8:  
18 8:24 9:3 9:4 9:22 10:3 10:7 10:9  
10:16 10:22 11:19 12:7 12:12 12:16  
12:24 12:25 13:14 13:17 14:25 15:2  
15:2 15:3 15:8 15:11 15:22 15:25 16:  
5 16:8 16:20 17:4 17:6 17:7 17:10 17:  
16 17:23 17:23 17:25 18:3 19:3 19:15  
19:18 20:4 20:5 20:9 20:10 20:11 20:  
12 20:14 20:15 20:23 20:25 21:10 21:  
17 22:4 22:12 23:2 23:11 24:6 24:9  
24:16 24:20 24:24 25:6 25:7 25:10 25:  
25 25:21 28:2 30:18 31:2 33:11 33:20  
33:20 33:22 35:14 35:19 35:20 36:9  
37:12 38:7 38:8 38:10 38:14 39:4 39:  
7 39:12 40:1 40:6 40:10 40:15 40:18  
41:17 41:19 42:4 42:6 42:17 42:24 43:  
22 43:25 44:8 44:9 44:9 44:10 44:15  
47:3 47:5 48:7 48:15 48:19 49:3 49:6  
49:18 49:18 49:21 49:23 50:23 51:8  
51:16 51:24 51:25 52:3 52:12 52:13  
52:14 52:15 52:15 52:15 54:8 55:4 55:  
16 56:9 56:13 56:14 56:23 56:25 57:1  
57:5 57:8 58:5 58:16 58:19 58:23 58:  
24 58:25 59:5 59:7 59:9 59:11 59:12  
59:16 59:20 60:2 60:4 60:5 60:14 60:  
18 60:19 60:21 60:22 60:23 60:25 61:  
3 61:25 62:4 62:8 62:8 62:14 62:17  
62:25 63:4 63:11 63:19 63:20 63:21  
64:1 64:2 64:10 64:21 64:22 65:1 65:  
4 65:24 66:1 66:1 66:6 66:7 66:10 66:  
15 67:9 67:10 67:19 67:20 67:21 67:  
22 67:23 68:2 68:4 68:7 68:9 68:10  
68:11 68:12 68:13 68:15 68:19 68:24  
69:6 70:6 70:7 70:11 71:1 71:1 71:2  
71:22 71:24 71:24 73:2 73:18 74:3 74:  
4 74:8 74:9 74:11 74:14 74:16 74:18  
74:23 75:1 75:2 75:5 75:8 75:23 76:  
11 77:7 77:8 77:8 77:22 78:11 78:11  
78:12 78:19 78:21 79:10 79:13 79:13  
79:14 79:16 79:17 79:17 79:23 80:13  
80:17 81:1 81:25 82:2 82:5 82:7 82:  
8 82:11 8:15 82:22 82:25 85:18 85:  
21 85:23 85:24 86:5 86:6 86:7 86:8  
86:9 87:4 87:13 87:19 87:22 88:4 90:  
1 90:17 90:23 91:1 92:2 92:2 92:2 92:  
18 9:18 92:23 93:5 93:22 94:10 96:  
12 96:24 100:23 100:25 101:8 101:9  
101:18 101:16 101:17 103:2 103:20  
103:22 104:5 104:12 104:17 104:19  
105:8 105:9 105:9 105:14 105:23 106:  
4 106:5 107:8 108:12 108:16 108:19  
108:21 108:22 109:1 109:3 109:3 109:  
5 109:6 109:16 109:26 110:6 110:13  
110:14 110:6 112:21 113:6 113:14 113:  
19 114:4 114:4 115:17 115:21 116:6  
117:3 117:8 117:19 117:24 117:25 120:  
3 120:4 120:10 120:13 120:19 120:16  
120:17 120:19 120:24 121:3 121:7 121:  
4 121:6 121:8 121:12 121:14 121:15  
121:16 121:20 122:2 122:3 122:4 122:  
12 122:15 122:19 122:25 123:7 123:6  
123:19 123:21 123:3 124:15 124:25  
125:3 125:14 125:19 125:21 125:21  
125:25 126:6 126:8 126:12 126:15 126:  
19 126:23 127:1 127:11 131:21 132:4  
132:8 132:6 132:6 132:17 133:6 133:  
20 133:24 136:24 136:25 137:5 137:13  
137:24 138:1 138:9 138:18 138:20 138:  
21 138:24 139:2 140:11 140:12 140:14  
141:6 141:12 142:11 142:12 143:14  
142:17 143:22 143:6 143:10 143:12  
143:15 145:1 145:8 145:14 145:15 145:  
23 146:2 146:3 147:7 147:9 147:9 147:  
12 147:17 147:22 147:24 148:7 148:8  
148:10 149:12 149:19 155:7 155:10 155:  
154:4 154:13 154:19 155:7 156:6 156:8  
14 155:18 155:25 156:3 156:6 156:8  
158:15 158:21 158:25 159:2 159:3 159:  
6 159:19 159:25 160:3 160:17 160:17  
161:20 161:21 161:25 162:19 162:24  
163:9 163:24 164:3 164:20 164:23 165:  
3 165:10 165:15 165:17 165:19 165:24  
165:25 166:13 166:14 168:17 168:19  
168:22 169:15 169:24 170:1 170:5 172:  
13 172:20 172:23 173:3 173:3 173:8  
173:9 176:3 177:16 177:25 178:14 178:  
19 179:25 180:3 180:4 180:5 180:8  
181:10 181:17 182:4 182:14 182:20  
182:25 183:9 183:10 183:12 183:20  
184:4 185:7 185:8 186:4 186:8 186:11  
186:13 186:16 187:5 187:12 188:14  
188:15 188:23 188:24 189:24 189:25  
189:4 189:5 189:9 189:11 189:11 189:  
15 189:18 189:24 190:15 190:17 190:  
24 190:25 191:6 191:20

## Bloods

[2] 123:15 125:8

## Bloody

[21] 22:10 48:8 48:14 66:8 66:11 66:  
1 7:12 73:14 78:17 78:25 144:19  
145:1 154:23 154:25 155:10 158:19  
163:4 163:4 163:24 164:2 189:8

## Blotting

[1] 48:1

## Blows

[7] 30:22 33:24 39:22 131:10 133:2  
133:5 133:9

## Bludgeoned

[5] 30:21 45:16 46:7 150:13 161:7

## Bludgeoning

[5] 30:25 31:9 38:22 43:1 73:21

## Blue

[1] 67:8

## Blunt

[2] 140:17 140:20

## Board

[2] 8:9 8:10

## Boat

[1] 71:17

## Body

[20] 31:9 31:16 34:1 34:22 35:11 42:  
12 45:12 76:10 76:11 125:6 133:3 135:  
9 139:6 139:8 142:26 146:18 147:16  
150:1 152:4 187:14

## BOLAND

[5] 1:26 114:12 141:15 144:4 149:8

## Bone

[1] 174:9

## Bones

[1] 174:25

## Book

[7] 127:10 127:18 127:19 127:20 127:  
25 128:9 128:24

## Borne

[1] 171:6

## Boston

[3] 98:25 99:3 99:7

## Bottom

[7] 38:21 38:22 45:3 45:13 46:10 17:3  
12 190:23

## Bottoms

[3] 150:22 151:3 151:24

## Boy

[1] 113:10

## Break

[13] 20:22 40:23 41:3 41:15 88:8 91:  
23 91:24 92:15 104:15 104:20 130:19  
136:2 141:6

## Breakdown

[1] 91:21

## Breaking

[4] 104:19 130:4 130:10 100:24

## Breaks

[1] 104:6

## Breakup

[1] 20:15

## Breast

[2] 77:6 78:19

## Brief

[3] 23:19 23:19 23:19

## Briefly

[2] 8:23 8:8

## Bring

[4] 17:14 21:25 21:7 108:7

## British

[1] 7:15

## Broadcasting

[2] 25:20 186:20

## Broken

[13] 14:25 21:1 21:2 32:18 43:6 63:3  
92:10 129:23 130:1 130:11 130:12 130:  
18 140:16

## Brought

[2] 17:22 180:10

## Bruce

[3] 1:25 195:2 195:19

## Brutal

[2] 13:14 17:5

## Bubble

[1] 71:11

## Bunch

[2] 140:18 145:23

## Bureau

[1] 6:17

## Burglar

[1] 158:7

## Burial

[1] 175:3

## Bushy

[3] 156:4 167:1 171:1

## Bushy-haired

[4] 131:16 158:4 167:1 171:1

## Business

[1] 163:20

## C

## C/A

[2] 1:9 2:8

## Calculations

[1] 145:15

## California

[8] 41:22 5:19 8:20 11:10 33:23 118:  
18 119:14 176:18

## Calmly

[1] 191:9

## Canada

[1] 12:12

## Canadian

[1] 9:17

## Cancer

[1] 118:18

## Cannot

[28] 35:12 36:7 41:19 48:16 60:3 60:  
16 70:25 79:21 105:23 121:25 133:3  
132:12 132:18 133:8 141:3 141:5 144:  
22 148:10 148:14 148:15 148:19 157:8  
171:6 180:6 183:25 191:2 191:8 191:9

## Capacity

[1] 4:13

## Card

[1] 22:7

## Cardboard

[2] 20:22 22:11

## Career

[1] 7:3

## Careful

[1] 29:4

## Carefully

[1] 110:3

## Carpet

[9] 55:13 106:23 107:3 107:16 109:3  
109:6 109:5 109:8 109:8

## Carpeting

[1] 103:21

## CARR

[5] 1:16 36:25 56:17 66:18 76:22

## Carry

[1] 94:12

## Case

[92] 1:8 2:8 6:23 13:25 15:4 15:7 15:  
16 15:16 21:15 23:14 24:8 24:10 24:  
11 24:22 25:17 25:18 26:12 26:18 27:  
7 27:24 27:25 28:2 29:2 29:13 30:11  
40:1 41:7 41:11 48:17 50:1 51:9 60:6  
65:4 66:14 70:14 71:10 83:11 84:13  
85:16 85:17 85:18 85:18 85:22 85:22  
86:10 86:14 86:17 88:10 88:13 94:13  
94:17 95:2 97:13 101:25 102:15 102:  
12 103:14 107:13 109:10 116:6 116:24  
118:19 118:20 119:1 120:18 121:11  
127:3 135:2 136:6 136:10 136:23 140:  
24 145:2 148:12 151:7 152:16 152:25  
155:1 156:12 162:8 164:5 167:24 171:  
5 172:3 185:12 185:20 186:11 187:9  
188:2 189:3 193:20 193:24

## Cases

[15] 5:23 6:5 7:1 7:2 7:3 10:6 10:7  
10:9 10:10 10:12 10:16 10:19 14:11  
15:4 35:7

## Casket

[1] 175:5

## Castoff

[14] 19:4 19:12 19:25 20:3 20:5 21:  
19 40:13 40:15 115:17 115:18 116:2  
131:20 132:2 132:3

## Cat

[1] 52:15

## Categorize

[2] 146:13 146:16

## Categorized

[2] 19:9 146:14

## Caused

[19] 20:3 22:3 22:17 22:21 22:24 22:  
25 32:13 36:19 48:16 63:8 72:16 100:  
2 129:21 133:2 133:23 140:25 147:3  
147:14 172:14

## Causes

[1] 92:13

## Causing

[2] 35:21 131:10

## Cautionary

[1] 194:2

## Cautious

[7] 14:14 14:19 14:24 29:8 29:10 78:  
23 149:15

## CD

[2] 102:19 102:21

## Cells

[1] 124:4

## Center

[2] 2:20 21:10

## Central

[1] 186:1

## Centrifugal

[1] 131:18

## Certain

[29] 9:5 14:16 14:18 14:22 15:4 15:  
33 17:1 17:13 48:19 48:22 48:24 90:  
24 93:4 96:11 102:23 109:21 151:7

151:9 16

[5] 164:16 166:16 167:11 171:14 171:16  
**Cling**  
 [1] 54:16  
**Close**  
 [8] 44:2 54:11 119:7 119:9 107:21  
 160:5 160:19 161:6  
**Close-up**  
 [6] 33:15 37:4 40:25 47:18 56:7 78:7  
**Close-ups**  
 [1] 54:11  
**Closed**  
 [1] 177:5  
**Closely**  
 [4] 22:12 32:15 31:24 72:3  
**Closer**  
 [4] 50:14 45:2 45:9 140:4  
**Closet**  
 [15] 32:4 32:6 32:8 32:9 32:16 39:6  
 42:8 42:17 77:13 87:19 117:3 176:23  
 177:4 178:18 190:6  
**Clothing**  
 [26] 11:20 14:4 17:8 65:25 66:2 66:13  
 67:14 77:7 68:11 68:25 84:1 85:6  
 85:11 85:12 86:12 87:16 87:17 104:12  
 148:14 151:19 163:25 173:12 175:3  
 175:10 180:5 186:4  
**Cloud**  
 [1] 43:15  
**Club**  
 [1] 109:22  
**Clue**  
 [3] 40:14 125:4 125:6  
**Colleague**  
 [8] 4:2 11:16 12:23 13:1 75:19 75:23  
 95:6 95:7  
**Colleagues**  
 [2] 3:11 9:7  
**Collect**  
 [1] 43:13  
**College**  
 [1] 8:20  
**Color**  
 [4] 52:12 67:7 70:20 178:27  
**Colors**  
 [1] 52:13  
**Combination**  
 [1] 173:2  
**Coming**  
 [36] 12:17 13:20 18:8 18:11 32:19 33:1  
 34:15 37:8 42:5 45:12 48:5 49:22  
 50:23 51:22 53:8 53:13 54:2 55:8 55:1  
 55:9 60:15 64:5 73:12 96:9 102:3  
 121:18 132:11 143:6 148:1 180:19 180:1  
 24 181:8 185:18 186:4 186:14 192:14  
**Commencing**  
 [1] 3:17  
**Comment**  
 [8] 33:22 72:1 77:10 78:18 130:3 124:1  
 1 129:24 193:12  
**Comments**  
 [3] 75:17 150:25 151:22  
**Committed**  
 [1] 179:1  
**Committees**  
 [2] 7:24 8:2  
**Common**  
 [15] 13:3 28:12 23:2 63:16 74:22  
 92:2 92:25 93:3 103:6 103:16 108:17  
 171:24 195:3 195:6  
**Commonly**  
 [1] 78:5  
**Community**  
 [1] 187:2  
**Compare**  
 [1] 75:21  
**Compared**  
 [2] 44:10 79:7  
**Comparing**  
 [1] 80:20  
**Comparison**  
 [2] 78:4 124:6  
**Compensated**  
 [1] 33:7  
**Compensation**  
 [2] 26:13 26:15  
**Competent**  
 [2] 160:15 161:1  
**Complete**  
 [1] 195:11  
**Completed**  
 [1] 118:22  
**Completely**  
 [2] 62:13 79:16  
**Component**  
 [1] 178:19

**Composite**  
 [2] 81:12 81:15  
**Comprehensive**  
 [1] 25:10  
**Concentrated**  
 [1] 5:5  
**Concept**  
 [1] 115:13  
**Concepts**  
 [1] 12:13  
**Concern**  
 [1] 175:15  
**Concerning**  
 [8] 30:13 50:12 119:18 119:24 139:6  
 139:25 146:12 167:3  
**Concise**  
 [1] 154:9  
**Conclude**  
 [3] 140:15 143:11 169:1  
**Concluded**  
 [5] 44:11 46:21 125:25 139:11 154:14  
**Conclusion**  
 [7] 15:19 42:6 48:18 116:5 160:1 143:7  
 192:15  
**Conclusions**  
 [6] 13:9 30:10 86:16 86:19 93:2 142:26  
**Conclusively**  
 [1] 173:18  
**Condition**  
 [2] 79:7 135:14  
**Conditions**  
 [1] 76:21  
**Conducted**  
 [2] 25:7 46:14  
**Conducting**  
 [1] 124:23  
**Conferences**  
 [1] 11:1  
**Confirm**  
 [5] 15:5 55:18 67:14 67:15 67:19  
**Confirmation**  
 [1] 67:18  
**Confirms**  
 [1] 37:12  
**Confrontation**  
 [2] 166:25 170:25  
**Confronted**  
 [1] 165:9  
**Confused**  
 [2] 23:3 32:3  
**Connected**  
 [3] 60:7 64:8 179:22  
**Connection**  
 [4] 49:25 61:9 178:14 180:2  
**Consciously**  
 [1] 86:10  
**Consider**  
 [3] 147:20 169:22 170:23  
**Considerable**  
 [2] 99:7 87:15  
**Considered**  
 [1] 171:2  
**Consistent**  
 [29] 32:18 38:14 38:16 49:22 50:22  
 50:24 51:5 64:22 69:1 72:7 73:11 74:1  
 23 84:24 84:24 85:2 130:2 130:3 132:7  
 140:17 140:18 153:17 155:21 156:17  
 162:12 167:10 170:8 181:11 191:11  
 190:6  
**Constitutes**  
 [1] 190:17  
**Consultant**  
 [1] 4:16  
**Consultants**  
 [1] 123:10  
**Consulted**  
 [1] 5:11  
**Consulting**  
 [1] 6:15  
**Contact**  
 [34] 22:8 23:11 23:19 47:4 47:5 48:5  
 49:23 50:23 70:7 71:24 73:11 73:12  
 73:15 73:16 75:19 78:11 78:16 78:25  
 82:11 82:11 82:16 94:21 94:22 95:2  
 141:9 141:11 142:1 142:4 143:6 143:10  
 142:10 144:20 144:20 145:11  
**Contacted**  
 [5] 25:19 26:10 27:14 48:14 76:7  
**Contacting**  
 [2] 78:13 78:14  
**Contain**  
 [1] 135:14  
**Contained**  
 [1] 135:14

**Contamination**  
 [1] 175:16  
**Contended**  
 [1] 160:1  
**Contention**  
 [2] 139:7 139:12  
**Context**  
 [1] 13:21  
**Continual**  
 [3] 101:2 101:16 104:8  
**Continue**  
 [4] 16:14 16:17 41:13 66:6  
**Continued**  
 [1] 38:4  
**Contribute**  
 [3] 27:22 98:7 173:9  
**Contribution**  
 [1] 34:5  
**Contributions**  
 [1] 105:17  
**Controversy**  
 [3] 119:17 119:23 120:1  
**Conversation**  
 [1] 49:18  
**Convinced**  
 [1] 150:10  
**Cooper**  
 [2] 47:18 98:11  
**Copies**  
 [4] 28:13 28:15 28:17  
**Copy**  
 [4] 5:13 11:24 12:2 186:23  
**Corner**  
 [8] 76:15 44:11 44:22 49:11 54:20 54:21  
 55:21 55:23  
**Coroner**  
 [1] 102:17  
**Coroner's**  
 [7] 38:12 80:2 80:9 81:14 136:23 176:17  
 178:10  
**Correct**  
 [188] 41:19 89:24 90:25 91:16 91:22  
 92:4 92:8 94:7 94:14 94:24 95:5 95:11  
 95:12 95:14 95:16 95:18 95:23 97:1  
 97:9 97:13 97:16 97:19 99:1 99:4  
 99:23 100:11 100:14 100:17 100:20  
 100:24 101:11 101:25 102:23 103:9  
 103:15 104:14 104:19 104:21 105:5  
 105:6 105:11 105:16 105:25 106:8 106:14  
 106:18 107:2 107:6 107:19 107:25  
 108:11 108:13 109:14 110:15 110:18  
 111:6 113:11 114:22 114:23 115:1 115:3  
 115:5 115:6 115:23 116:10 117:3  
 117:35 118:8 118:13 119:16 122:1 122:2  
 5 123:6 123:11 123:3 123:15 124:16  
 126:7 127:23 129:6 129:10 129:22 131:1  
 1 131:22 133:14 133:20 133:21 134:19  
 134:20 134:22 134:25 135:4 135:5 135:10  
 135:15 135:16 135:19 137:11 138:1  
 13 140:11 141:20 142:7 142:13 142:17  
 142:22 143:23 144:11 145:6 145:7 145:12  
 145:19 147:8 148:13 148:18 151:4  
 151:8 151:25 152:15 152:21 153:22  
 154:1 154:5 154:14 155:8 155:20 155:23  
 156:5 156:16 156:23 158:5 159:16  
 159:17 159:22 159:25 160:7 161:16  
 161:23 162:5 164:16 164:17 165:12  
 165:16 166:14 166:18 167:5 167:9 168:16  
 168:20 168:25 169:4 170:7 170:13  
 170:14 171:7 171:8 171:17 171:25 172:1  
 20 173:13 173:14 174:10 175:5 175:10  
 175:16 175:17 176:8 176:14 177:6 177:19  
 178:1 178:2 181:18 183:2 185:13  
 186:14 186:15 188:13 190:18 191:1  
 191:7 191:12 191:18 192:3 192:8 192:13  
 192:24 193:4 193:8 195:13  
**Cotton**  
 [1] 58:5  
**Coughed**  
 [1] 23:4  
**Coughing**  
 [4] 15:2 59:7 92:1 92:2  
**Coughs**  
 [1] 123:14  
**Counsel**  
 [8] 3:6 3:10 30:8 72:20 72:23 76:20  
 160:14 173:21  
**Count**  
 [1] 133:10  
**Countries**  
 [1] 177:21  
**Country**  
 [3] 8:5 8:14 9:22  
**County**  
 [9] 1:2 1:26 2:2 102:17 136:22 178:8  
 178:11 195:4 195:20  
**Couple**  
 [9] 20:23 22:20 27:12 54:25 83:15 93:18  
 146:11 161:15 166:4  
**Course**  
 [32] 4:16 5:3 5:14 9:23 10:23 11:16

12:14 14:9 16:10 24:7 28:19 31:9 33:14  
 34:24 38:13 39:23 40:7 43:9 46:15  
 49:12 80:14 84:3 93:9 93:12 93:13 99:15  
 113:4 115:20 141:9 149:20 166:16  
 174:7  
**Courses**  
 [2] 5:1 43:11  
**Court**  
 [96] 1:3 1:25 2:3 2:16 3:2 3:5 3:9 3:16  
 6:25 7:5 12:3 16:23 17:18 17:20  
 24:11 29:21 30:1 30:5 30:8 30:9 31:13  
 40:25 41:13 50:6 50:19 58:2 60:11  
 62:23 64:15 64:18 65:14 68:21 69:10  
 69:14 72:19 72:23 72:24 76:10 76:20  
 80:18 80:22 81:1 81:4 81:9 85:8 85:15  
 86:21 87:1 87:11 88:1 88:7 89:3  
 95:21 119:21 126:11 128:10 128:20  
 128:25 131:24 135:25 151:21 152:23  
 153:3 157:1 158:10 160:9 160:12 160:14  
 160:23 162:9 163:14 163:18 168:6  
 169:10 169:20 170:19 170:21 170:22  
 172:2 173:25 174:5 174:13 174:17 175:24  
 177:10 179:8 191:14 192:4 193:7  
 193:11 193:15 194:4 195:2 195:3 195:6  
 195:20  
**Court's**  
 [1] 29:17  
**Courtroom**  
 [8] 2:19 10:14 88:16 109:4 174:1 183:21  
 184:6 193:19  
**Courts**  
 [1] 2:14  
**Cover**  
 [2] 34:15 124:7  
**Covering**  
 [1] 175:10  
**Cow**  
 [1] 52:14  
**Cowan**  
 [25] 25:3 28:12 39:18 51:3 51:18 52:1  
 54:6 55:14 58:14 59:15 61:10 66:1  
 24 70:3 74:8 79:12 81:20 84:14 86:2  
 86:5 111:16 134:11 138:21 159:5 164:22  
 190:18  
**Cowan's**  
 [5] 61:16 110:3 111:9 185:4 190:20  
**Create**  
 [2] 143:15 145:2  
**Creates**  
 [1] 104:16  
**Credence**  
 [1] 183:8  
**Crevices**  
 [2] 68:15 156:10  
**Crime**  
 [45] 5:20 5:22 5:23 6:7 6:8 6:12 7:16  
 7:18 8:4 8:13 10:7 10:11 10:24 13:13  
 13:15 13:21 14:1 15:9 15:12 16:25  
 19:8 20:6 21:11 24:25 25:8 25:11 28:14  
 28:22 51:17 51:18 60:8 62:20 64:9  
 77:14 84:5 96:22 104:8 135:22 177:7  
 179:1 179:14 179:23 181:5 183:11 184:23  
**Crimes**  
 [1] 9:3  
**Criminal**  
 [4] 6:17 6:23 12:19 28:11  
**Criminal/legal**  
 [1] 4:25  
**Criminalist**  
 [10] 4:12 7:1 25:9 83:9 123:18 156:20  
 157:16 165:13 167:7 187:6  
**Criminalistic**  
 [2] 69:24 84:12  
**Criminalistics**  
 [5] 4:23 5:2 8:10 8:22 16:3  
**Criminalists**  
 [2] 5:2 11:13  
**Criminology**  
 [1] 8:21  
**Criteria**  
 [2] 123:16 124:18  
**Critical**  
 [2] 178:19 186:11  
**Criticized**  
 [3] 182:12 182:15 182:18  
**Cross**  
 [4] 50:20 89:5 89:7 192:4  
**Crystal**  
 [10] 70:6 70:11 71:1 71:12 73:24 78:15  
 79:17 82:10 153:16 161:11  
**Cuffs**  
 [1] 84:16  
**Cups**  
 [1] 123:9  
**Curriculum**  
 [1] 11:25  
**Cut**  
 [7] 64:22 103:5 103:18 111:25 117:1  
 117:2 117:6  
**Cutout**

[1] 93:18  
**Cutting**  
[3] 101:1 113:9 113:10  
**Cuyahoga**  
[9] 3:2 1:26 2:2 102:17 136:27 178:8  
178:11 195:4 195:20  
**Cynthia**  
[2] 93:18 98:11

## D

**Dairy**  
[1] 166:2  
**Damage**  
[3] 83:4 83:5 83:8  
**Dark**  
[2] 107:7 107:9  
**Darkening**  
[1] 78:20  
**Darkness**  
[2] 107:4 107:4  
**Date**  
[1] 136:25  
**DAVIS**  
[2] 1:5 2:5  
**Day-to-day**  
[1] 6:7  
**Days**  
[3] 56:21 51:21 154:7  
**Dead**  
[1] 176:6  
**Deal**  
[1] 103:2  
**Dealing**  
[8] 4:24 5:6 92:18 93:4 120:17 138:17 161:20 176:2  
**Dealt**  
[2] 6:7 113:19  
**Dean**  
[1] 1:29 144:1  
**Death**  
[14] 35:7 119:4 135:19 138:3 148:12 148:17 150:1 150:23 151:25 152:11 152:12 157:20 159:9 177:6  
**Defend**  
[2] 127:23 183:21  
**Defendant**  
[3] 1:11 1:21 2:10  
**Defenders**  
[1] 11:3  
**Defending**  
[1] 75:6  
**Defense**  
[4] 12:18 85:12 118:25 179:4  
**Defensive**  
[1] 193:17  
**Defer**  
[1] 180:13  
**Definitely**  
[3] 90:13 102:15 149:7  
**DeForest**  
[4] 95:9 95:10 98:22 126:14  
**Degree**  
[8] 4:21 4:23 18:18 89:13 112:20 156:13 171:3 182:23  
**Degrees**  
[6] 18:23 19:1 19:23 20:20 37:8 116:16  
**Delve**  
[1] 40:20  
**Demonstrate**  
[13] 17:22 19:6 21:22 66:9 75:20 96:9 96:11 96:19 96:25 97:6 99:18 101:7 187:11  
**Demonstrated**  
[3] 34:19 100:10 100:25  
**Demonstration**  
[5] 94:16 99:18 99:20 101:19 101:21  
**Demonstrations**  
[2] 26:5 100:22  
**Den**  
[4] 108:6 152:8 153:1 157:6  
**Dental**  
[1] 176:4  
**Dentistry**  
[1] 130:14  
**Department**  
[7] 11:2 51:19 136:23 167:16 178:10 178:11 178:12  
**Depicted**  
[3] 99:16 139:10 141:20  
**Depose**  
[1] 119:25  
**Deposit**  
[10] 77:7 77:11 77:22 78:12 143:10 143:12 147:9 147:10 147:11 181:17

**Deposited**  
[18] 31:3 43:17 43:22 44:3 49:13 49:19 51:10 60:17 81:22 85:3 87:21 114:8 115:8 115:11 117:3 117:8 132:7 184:4  
**Depositing**  
[1] 190:7  
**Deposition**  
[1] 118:19  
**Depositions**  
[2] 27:5 103:3  
**Deposits**  
[8] 71:1 71:23 78:9 79:17 79:18 141:9 146:19 146:21  
**Describe**  
[2] 54:19 111:16  
**Described**  
[15] 49:16 50:12 50:16 51:16 52:23 54:22 55:9 55:14 58:11 65:29 66:23 67:6 111:20 184:21 184:25  
**Describes**  
[2] 88:10 67:11  
**Description**  
[3] 61:15 80:19 166:21  
**Desk**  
[1] 158:17  
**Detail**  
[2] 23:16 41:18  
**Detect**  
[1] 81:25  
**Detectable**  
[1] 86:7  
**Detective**  
[1] 167:15  
**Determination**  
[4] 120:11 170:3 180:6 182:13  
**Determinative**  
[1] 181:21  
**Determine**  
[31] 17:24 18:17 40:6 40:7 40:15 40:21 47:7 48:16 51:13 58:15 59:11 59:21 59:25 60:1 60:6 60:14 60:14 61:19 70:12 74:4 74:17 79:6 83:22 110:20 120:9 120:15 132:18 137:14 164:20 180:3 180:5  
**Determined**  
[22] 30:19 58:24 58:25 59:4 59:7 59:9 59:10 62:7 65:5 74:8 74:19 74:20 120:21 120:23 121:5 121:11 122:3 137:1 138:21 160:3 174:8 180:9  
**Determining**  
[4] 60:12 182:1 182:13 183:8  
**Developed**  
[3] 9:6 9:8 16:1  
**Developing**  
[1] 177:23  
**Dever**  
[41] 1:19 16:22 36:4 50:4 50:18 53:15 53:18 53:21 53:24 60:9 62:21 64:13 64:17 65:12 68:20 68:4 69:12 76:15 80:16 85:7 85:14 86:29 86:29 87:10 87:24 89:5 89:8 114:14 136:17 160:10 167:21 174:15 177:8 177:15 178:23 179:7 179:16 188:22 190:13 191:3 191:9  
**Diagram**  
[3] 38:4 38:5 69:12  
**Diagrams**  
[1] 133:16  
**Diameter**  
[9] 42:19 105:15 105:22 107:19 108:12 108:22 110:7 111:16 184:25  
**Diameters**  
[1] 103:8  
**Died**  
[1] 34:2  
**Difference**  
[1] 125:5  
**Differences**  
[3] 44:8 44:9 125:23  
**Different**  
[39] 8:2 13:6 28:7 42:18 42:22 42:22 44:11 44:15 44:17 45:4 62:13 63:15 67:11 72:25 79:16 87:23 96:20 96:25 115:8 120:12 123:14 123:16 123:24 123:25 125:3 125:4 125:8 125:19 125:25 172:14 182:20 183:17 183:23 183:22 184:10 184:10 190:8 191:23 192:14  
**Differently**  
[1] 123:24  
**Difficult**  
[5] 22:24 68:16 120:13 127:22 199:6  
**Diffuse**  
[4] 49:22 67:1 67:3 92:13  
**Diffused**  
[1] 49:20  
**Digital**  
[1] 102:32  
**Digitalized**

[1] 80:3  
**Digitized**  
[1] 38:15  
**Dilute**  
[1] 50:25  
**Diluted**  
[2] 49:17 49:17  
**Dimensions**  
[1] 13:17  
**Dining**  
[3] 106:23 108:3 112:16  
**Dip**  
[1] 101:8  
**Dipping**  
[1] 63:19  
**Direct**  
[3] 4:2 123:21 125:13  
**Direction**  
[8] 17:25 18:13 18:15 31:22 32:1 33:3 55:1 119:13  
**Directionality**  
[4] 53:8 116:12 116:18 116:19  
**Directly**  
[6] 9:25 37:8 54:15 54:15 119:9 183:14  
**Director**  
[2] 6:6 100:7  
**Disagree**  
[7] 136:6 132:23 185:9 185:10 185:22 185:25 186:1  
**Disciple**  
[1] 185:19  
**Discipline**  
[1] 90:3  
**Discrepancy**  
[1] 173:17  
**Discuss**  
[12] 13:4 41:7 41:8 88:9 88:11 136:6 136:7 136:14 169:14 169:22 193:20 193:21  
**Discussed**  
[2] 87:5 169:21  
**Discussing**  
[1] 90:19  
**Discussion**  
[8] 40:7 72:22 76:19 105:25 160:13 170:29 173:16 182:6  
**Discussions**  
[1] 169:5  
**Display**  
[2] 80:12 103:12  
**Dissolve**  
[2] 123:13 123:24  
**Dissolved**  
[2] 123:8 123:10  
**Dissolving**  
[1] 123:11  
**Distance**  
[3] 43:22 51:4 82:21  
**Distant**  
[1] 137:23  
**Distilled**  
[2] 123:9 123:10  
**Distinct**  
[3] 20:1 112 132:22  
**Distinguish**  
[5] 91:6 123:14 123:17 124:15 124:24  
**Distinguished**  
[1] 7:22  
**Distinguishing**  
[2] 129:7 125:14  
**Distributed**  
[1] 17:7  
**Distribution**  
[2] 17:10 91:3  
**Disturb**  
[1] 176:5  
**Disturbing**  
[1] 176:5  
**Divides**  
[1] 105:3  
**Dividing**  
[1] 42:7  
**DIVISION**  
[2] 1:4 2:4  
**DNA**  
[21] 44:13 60:2 122:9 122:17 122:23 122:24 126:5 126:22 127:2 173:1 173:2 173:10 173:18 175:13 176:3 180:4 183:3 183:8 183:15 191:5 191:21  
**Doctor**  
[5] 49:11 114:16 126:25 132:15 177:14  
**Doctor's**  
[6] 108:5 112:18 152:15 157:19 158:17 159:8

**Document**  
[3] 9:12 11:23 136:20  
**Documentary**  
[1] 169:14  
**Documented**  
[2] 54:6 79:11  
**Documenting**  
[1] 52:22  
**Dog**  
[1] 113:9  
**Dombrowski**  
[6] 52:22 55:14 58:14 59:16 106:13 159:5  
**Done**  
[49] 6:15 8:25 9:19 10:2 24:24 25:22 25:22 25:23 42:24 43:9 44:7 60:24 61:2 63:17 65:17 66:8 69:23 74:1 78:6 81:15 83:11 83:16 84:11 85:25 86:15 93:19 93:25 95:14 97:7 98:25 99:3 120:3 125:1 126:13 126:21 130:7 130:21 130:23 143:19 145:12 145:20 155:16 158:24 180:8 183:19 183:13 190:17 191:21  
**Donned**  
[1] 175:7  
**Donnybrooks**  
[1] 51:19  
**Door**  
[47] 32:2 32:4 32:4 32:4 32:6 32:8 32:9 32:16 32:17 34:6 37:17 38:12 39:6 42:8 42:8 42:16 42:18 43:3 43:17 44:2 56:5 56:11 77:13 77:14 87:19 115:9 116:17 117:3 117:8 121:20 122:5 122:10 125:21 131:22 132:7 132:18 132:22 176:22 176:23 177:4 177:4 179:18 184:4 190:6 190:16 190:24 191:11  
**Doors**  
[11] 32:2 37:18 38:8 40:11 42:1 42:13 132:3 176:16 176:23 177:2 177:3  
**Doorway**  
[2] 45:5 133:1  
**Doubt**  
[1] 183:4  
**Down**  
[85] 13:7 16:4 18:8 18:12 22:14 22:19 30:9 32:21 32:25 33:6 33:12 33:17 33:23 34:12 34:13 34:15 35:8 37:13 38:5 38:21 39:9 43:1 43:4 47:1 48:9 48:13 51:7 51:23 51:23 53:8 53:12 53:13 54:2 54:3 54:24 54:25 55:5 55:8 56:12 57:7 57:9 57:9 58:3 58:6 63:14 68:9 69:7 70:8 70:9 71:2 71:21 75:24 76:8 76:21 78:1 84:8 84:25 103:11 103:13 105:2 106:10 110:10 110:23 112:19 114:15 116:10 116:17 132:15 140:24 147:12 149:10 150:12 153:1 153:5 157:6 159:7 166:25 168:4 169:4 169:12 171:20 171:23 173:15 180:24 195:5  
**Downstairs**  
[3] 58:3 152:7 152:14  
**Dozen**  
[1] 61:21  
**DQ**  
[1] 191:5  
**DQ-Alpha**  
[1] 191:5  
**Dr**  
[139] 8:22 24:19 25:12 28:13 35:10 36:23 37:15 38:6 39:3 39:15 42:15 44:7 49:10 49:16 50:10 50:25 54:22 55:10 56:20 62:11 63:17 65:22 66:13 66:12 68:1 68:18 68:23 70:5 70:13 71:16 74:18 77:12 79:4 79:12 84:1 84:4 84:16 85:13 86:2 87:8 89:14 89:20 92:17 95:8 98:13 98:15 98:16 98:22 113:12 113:18 113:23 114:21 117:22 118:2 118:16 118:22 118:25 119:3 119:12 119:13 119:18 119:24 120:18 121:3 121:5 122:1 122:20 123:4 124:2 124:9 125:9 125:18 126:14 126:18 126:21 126:24 126:25 127:21 128:1 128:4 128:13 129:3 129:9 130:16 130:24 131:3 131:8 132:9 132:12 132:22 134:5 134:8 134:17 137:8 137:9 137:12 151:1 153:21 154:12 154:19 155:8 156:14 157:23 158:5 159:14 162:3 162:14 163:7 163:23 164:15 164:25 166:8 166:24 167:13 168:3 168:9 168:14 169:15 169:23 170:4 170:11 170:24 171:10 172:5 175:12 176:12 177:23 178:3 178:25 182:6 182:12 184:8 185:3 185:5 185:14 185:23 186:12 190:19 192:11  
**Dramatic**  
[1] 181:19  
**Draw**  
[1] 90:24  
**Drawing**  
[1] 167:6  
**Dress**  
[1] 173:10  
**Dresser**  
[2] 56:9 56:10  
**Drew**  
[2] 38:4 38:6

**Dried**  
[6] 45:15 120:17 123:6 125:3 150:1  
165:1

**Dries**  
[1] 120:17

**Drip**  
[8] 18:3 66:6 66:10 77:7 103:7 104:  
13 160:20 180:20

**Dripped**  
[2] 106:6 106:7

**Dripping**  
[11] 15:3 43:12 63:9 63:14 64:22 66:  
4 101:1 101:5 105:24 108:21 155:7

**Drips**  
[4] 100:28 103:7 168:18 168:22

**Drop**  
[4] 53:9 73:23 86:5 181:18

**Droplet**  
[3] 50:8 101:10 104:17

**Droplets**  
[5] 91:22 105:14 105:22 116:5 160:16

**Dropped**  
[2] 166:19 183:13

**Dropping**  
[6] 8:24 12:11 78:1 100:25 103:24  
117:19

**Drops**  
[14] 19:7 19:18 43:25 63:21 63:23 63:  
24 66:7 101:2 106:9 116:5 159:6 168:  
19 168:22 181:10

**Dry**  
[14] 143:14 145:1 145:9 146:3 146:4  
155:11 156:8 159:20 165:2 165:15 165:  
20 165:21 183:10 189:11

**Drying**  
[4] 145:1 145:19 145:24 145:25

**Duly**  
[3] 1:4

**Dumped**  
[1] 57:15

**Duplicate**  
[3] 40:15 95:25 96:21

**Duplication**  
[1] 55:14

**During**  
[22] 30:25 31:9 33:14 34:24 35:4 35:  
24 36:18 38:25 40:3 40:7 46:4 46:25  
68:19 93:20 96:7 99:7 99:15 113:14  
128:4 142:16 150:18 175:3

**Dusting**  
[1] 46:10

**Dying**  
[1] 118:17

**Dynamic**  
[2] 51:4 181:6

**Dynamics**  
[1] 91:9

## E

**Early**  
[2] 4:13 159:4

**Easier**  
[2] 39:19 70:19

**Easily**  
[1] 75:20

**East**  
[4] 4:16 112:1 133:12 149:4

**Eberling**  
[9] 121:19 122:9 122:25 127:3 127:9  
137:6 190:24 191:10 191:18

**Eberling's**  
[4] 101:6 121:12 137:5 190:25

**Edge**  
[6] 58:22 43:24 49:7 49:11 49:11 112:  
2

**Edges**  
[2] 46:10 49:21

**Edina**  
[1] 4:9

**Edition**  
[1] 186:25

**Educational**  
[1] 4:20

**Effect**  
[2] 181:17 181:19

**Effort**  
[2] 51:16 126:19

**Eight**  
[3] 9:22 66:5 186:2

**Eightth**  
[4] 1:15 105:18 111:25 112:5

**Either**  
[13] 14:3 40:17 47:5 59:15 104:23  
111:17 112:16 136:15 144:19 147:5  
156:16 171:11 184:17

**Elapsed**

[1] 155:25

**Electrophoresis**

**Elongated**  
[4] 18:9 19:14 19:23 116:3

**Elsewhere**  
[1] 168:23

**Emanating**  
[1] 38:24

**Emerging**  
[2] 177:17 177:18

**Employed**  
[2] 4:13 10:23

**Employment**  
[1] 5:17

**Enable**  
[1] 17:11

**End**  
[8] 12:10 46:6 130:19 131:19 146:24  
149:3 150:19 150:19

**Ended**  
[2] 139:14 139:16

**Ends**  
[2] 57:19 151:2

**Energy**  
[3] 47:13 92:12 104:16

**Enforcement**  
[4] 5:24 6:21 154:8 178:13

**England**  
[1] 5:10

**Enhance**  
[1] 144:1

**Enhancement**  
[1] 100:22

**Enhancements**  
[2] 100:25 103:1

**Enlargement**  
[1] 116:15

**Enormous**  
[3] 119:17 119:23

**Entertainment**  
[2] 128:16 173:23

**Entire**  
[3] 86:14 106:11 161:14

**Enzyme**  
[2] 172:25 183:2

**Epstein**  
[44] 3:15 3:23 4:2 4:4 4:7 5:8 9:10  
11:21 15:8 17:14 21:6 25:16 29:16 30:  
11 39:15 41:15 46:7 52:17 56:21 76:  
24 81:11 85:4 86:17 89:3 89:17 89:19  
89:13 89:14 122:15 128:9 132:15 134:  
13 136:18 139:7 144:22 159:15 160:18  
160:25 176:8 177:12 177:16 190:13  
190:15 193:16

**Especially**  
[8] 5:25 16:1 40:11 71:21 72:2 86:11  
123:19 154:18

**ESQ**  
[7] 1:16 1:16 1:17 1:19 1:19 1:20 1:  
20

**Essence**  
[1] 185:8

**Essentially**  
[5] 92:5 99:21 101:20 104:11 116:24

**Establish**  
[3] 48:11 60:16 137:24

**Establishes**  
[1] 173:18

**Estate**  
[2] 1:6 2:5

**Estimate**  
[1] 7:2

**Et**  
[1] 27:5

**Evaluate**  
[6] 12:25 24:9 25:7 25:22 36:11 115:  
21

**Evaluated**  
[1] 25:2

**Evaluating**  
[7] 16:3 19:3 25:5 26:22 47:14 116:  
23 172:3

**Evaluation**  
[1] 13:3 15:12 15:14 35:19 150:20 25:  
24 51:16 87:3 87:6 88:4 140:23 152:9  
152:25 153:7 154:16 156:11 156:20  
158:23 171:4 185:3 191:15

**Evaluations**  
[5] 13:1 13:2 14:12 15:11 28:12

**Evening**  
[3] 107:5 193:18 194:3

**Event**  
[5] 13:14 35:10 153:18 181:5 181:6

**Events**  
[6] 17:5 50:13 50:15 153:25 157:18  
170:11

**Everywhere**  
[1] 45:22

**Evidence**  
[26] 5:25 6:4 6:23 13:11 15:14 16:4  
28:1 42:6 83:11 117:9 117:24 118:6  
136:13 138:12 139:1 149:5 149:11 153:  
13 163:19 167:23 171:5 172:4 173:19  
181:10 191:11 192:17

**Evidently**  
[1] 100:5

**Exact**  
[1] 47:22

**Exactly**  
[25] 22:3 22:24 34:18 42:21 47:7 47:  
15 47:24 48:1 48:11 49:20 52:23 60:  
16 70:12 81:18 96:21 97:5 97:7 134:  
29 143:24 144:12 147:3 148:6 149:17  
149:19 157:4

**Exam**  
[1] 79:3

**Examination**  
[15] 4:2 6:24 8:7 15:15 59:17 66:24  
73:19 84:15 89:7 158:21 161:24 177:12

**Examinations**  
[6] 3:6 12:21 44:13 138:19 165:18  
191:22

**Examine**  
[7] 13:11 14:7 49:12 50:21 89:5 102:  
14 195:2

**Examined**  
[4] 31:25 39:3 69:17 165:5

**Examiner**  
[2] 152:15 161:2

**Examiners**  
[2] 40:19 57:14

**Examines**  
[1] 46:19

**Examining**  
[2] 30:17 84:20

**Except**  
[1] 196:4 198:25

**Excess**  
[1] 198:22

**Exclude**  
[5] 121:19 122:25 127:6 144:22 173:11

**Excluded**  
[2] 127:4 173:6

**Excuse**  
[3] 76:15 100:25 138:7

**Excused**  
[2] 193:15 193:17

**Exercise**  
[1] 176:4

**Exercises**  
[1] 16:15

**Exhibit**  
[21] 3:11 3:17 11:22 31:11 31:14 53:  
16 54:20 55:7 56:3 56:15 57:25 66:19  
75:12 76:22 80:23 81:8 114:13 136:19  
141:16 146:8 149:9

**Exhumation**  
[6] 26:24 174:8 174:23 175:3 175:4  
175:19

**Existed**  
[1] 61:17

**Existence**  
[2] 8:12 49:13

**Expect**  
[20] 87:14 104:1 109:3 135:20 161:7  
162:23 163:6 163:8 163:17 163:22 164:  
3 166:1 166:12 181:1 186:9 188:23 188:  
24 188:24 188:25 189:9

**Expected**  
[3] 68:24 165:24 186:15

**Expecting**  
[2] 27:5 27:10

**Expenses**  
[2] 27:17 27:18

**Experience**  
[15] 8:17 10:11 16:13 16:19 17:2 18:  
2 48:13 62:19 122:23 144:14 161:25  
162:3 181:2 187:5 187:7

**Experienced**  
[1] 161:20

**Experiment**  
[4] 75:21 76:3 96:14 146:1

**Experimentation**  
[1] 15:5

**Experiments**  
[22] 8:25 9:5 9:6 9:18 9:20 10:2 11:  
12 11:11 12:15 24:12 65:17 65:22 65:  
25 66:9 88:3 93:11 93:17 93:19 94:3  
97:5 130:16 145:20

**Expert**  
[6] 10:15 25:17 94:4 96:16 174:12  
187:6

**Expertise**

[5] 25:25 30:14 98:8 105:23 191:17

**Experts**  
[6] 9:22 28:20 75:16 97:12 130:14  
176:1

**Explain**  
[12] 17:15 17:21 21:24 33:3 34:4 42:  
10 50:16 82:3 84:10 132:8 135:12 174:  
19

**Explains**  
[1] 170:5

**Explanation**  
[3] 142:24 152:24 154:4

**Explanations**  
[2] 113:5 114:3

**Explored**  
[1] 83:25

**Expose**  
[1] 39:24

**Exposed**  
[7] 39:17 39:25 46:25 46:25 71:17  
142:17 188:16

**Express**  
[4] 41:10 88:13 136:9 193:23

**Expressed**  
[1] 188:3

**Eye**  
[1] 107:24

## F

**Fabric**  
[1] 66:2

**Face**  
[4] 39:8 47:6 48:14 79:17

**Faced**  
[1] 59:19

**Facing**  
[1] 45:11

**Fact**  
[35] 44:16 46:13 48:23 63:3 70:12 74:  
9 105:24 107:23 109:4 113:4 113:18  
117:1 120:24 123:20 125:25 126:25  
127:15 131:6 132:5 134:20 134:25 158:  
19 159:7 159:18 159:24 160:17 169:5  
169:6 174:21 177:4 177:5 181:15 181:  
20 185:21 190:16

**Factor**  
[8] 74:19 74:20 74:21 74:25 75:1 75:  
4 75:8 181:24

**Facts**  
[6] 17:24 50:1 164:9 171:6 172:17  
175:20

**Failed**  
[1] 128:18

**Failure**  
[1] 165:7

**Fair**  
[7] 90:4 92:14 99:14 142:15 143:11  
167:7 169:1

**Fall**  
[2] 103:11 103:13

**Fallen**  
[1] 163:3

**Falling**  
[1] 106:10

**Famed**  
[1] 141:19

**Familiar**  
[5] 108:7 119:11 127:10 144:5 187:8

**Family**  
[3] 26:9 27:16 179:5

**Far**  
[39] 13:5 66:15 69:24 90:7 93:5 96:6  
97:2 98:5 105:20 108:17 111:16 113:6  
114:24 122:2 124:10 126:8 126:18 128:  
3 128:18 130:14 135:17 137:22 145:12  
145:15 148:17 154:4 156:1 156:23 157:  
18 157:19 164:9 168:10 170:11 175:19  
175:19 178:9 182:19 186:17 191:10

**Feathering**  
[1] 147:7

**Fee**  
[3] 27:8 27:9 27:10

**Fees**

**Feet**  
[4] 26:16 27:13 27:15 27:17

**Feet**  
[3] 37:24 38:15 180:22

**Fell**  
[3] 54:23 55:11 135:6

**Fellow**  
[1] 158:4

**Fellows**  
[1] 169:12

**Few**  
[18] 8:24 22:1 22:2 23:4 23:10 28:7  
58:8 63:23 66:5 69:1 75:25 112:23  
135:22 147:1 155:11 156:4 156:18 188:  
9

**Fibers**



**Fiction**  
 (1) 3/3:27  
**Field**  
 (10) 5:2 7:25 15:22 15:22 17:15 24:  
 35 113:19 130:14 177:17 177:18  
**Fields**  
 (1) 93:3  
**Figure**  
 (1) 144:10  
**Filed**  
 (1) 3:21  
**Film**  
 (3) 16:5 99:18 99:20  
**Filmed**  
 (1) 97:14 98:8  
**Filming**  
 (10) 26:2 35:14 95:17 95:23 96:1 96:  
 7 98:24 98:25 98:8 99:15  
**Final**  
 (3) 81:6 94:24 187:18  
**Finally**  
 (8) 41:11 86:13 88:14 136:18 176:10  
 177:1 141:24 193:24  
**Findings**  
 (2) 12:20 24:12 182:13  
**Fine**  
 (3) 11:10 34:12 58:9  
**Finger**  
 (3) 18:3 63:22 66:11  
**Fingernail**  
 (2) 83:19 83:20  
**Fingerprint**  
 (1) 179:1  
**Fingerprints**  
 (1) 176:24  
**Fingers**  
 (6) 73:14 73:14 75:23 147:13 154:23  
 155:1  
**Firearms**  
 (1) 19:15  
**Firm**  
 (1) 99:10  
**First**  
 (40) 3:24 5:22 8:19 13:12 17:22 24:9  
 24:15 24:20 25:13 28:10 30:12 36:20  
 43:9 52:19 53:19 53:20 54:3 54:14 61:  
 6 62:7 65:23 70:14 74:10 82:16 87:6  
 97:17 100:1 103:2 103:3 103:11 105:2  
 13:28 129:19 137:2 137:4 146:2 146:  
 1 158:14 167:14 179:6  
**Firsthand**  
 (1) 4:11  
**Fist**  
 (1) 100:13  
**Five**  
 (11) 12:12 56:23 57:4 58:23 61:4 62:  
 5 82:17 81:7 106:15 138:20 139:1  
**Flaked**  
 (2) 165:20 165:23  
**Flash**  
 (1) 14:18  
**Flashlight**  
 (4) 99:1 100:1 100:8 141:5  
**Flat**  
 (5) 52:1 54:5 103:20 105:12 110:25  
**Flew**  
 (1) 118:18  
**Flights**  
 (1) 6:16  
**Flip**  
 (1) 46:4  
**Flood**  
 (1) 103:7  
**Floor**  
 (19) 41:5 51:3 52:19 52:20 53:19 54:  
 2 54:3 54:14 57:20 59:3 61:6 83:17  
 105:2 105:13 110:15 117:20 162:16 163:  
 3 181:15  
**Florida**  
 (2) 9:17 11:11  
**Flow**  
 (2) 101:17 101:18  
**Flowing**  
 (1) 147:22  
**Fluid**  
 (4) 91:8 103:7 136:24 136:25  
**Fluids**  
 (1) 93:4  
**Flung**  
 (3) 42:4 132:2 132:5  
**Flung-off**  
 (1) 132:5  
**Flying**  
 (2) 73:18 73:21  
**Focus**

(1) 115:23  
**Fold**  
 (3) 46:14 144:15 144:17  
**Folded**  
 (2) 45:20 48:15  
**Folding**  
 (6) 47:22 47:24 48:13 144:10 144:19  
 144:21  
**Folds**  
 (1) 45:24  
**Folks**  
 (4) 8:16 17:3 98:18 173:15  
**Follow**  
 (1) 196:11  
**Follows**  
 (1) 3:25  
**Foot**  
 (1) 110:23  
**Footnote**  
 (1) 126:3  
**Force**  
 (8) 20:18 20:19 21:7 91:20 104:16  
 131:18 140:17 140:20  
**Forces**  
 (1) 13:8  
**Foregoing**  
 (1) 195:9  
**Foreign**  
 (1) 62:17  
**Forensic**  
 (12) 4:12 4:15 4:16 6:14 7:15 7:15 7:  
 17 7:21 11:8 73:2 90:10 93:21  
**Forgot**  
 (1) 157:20  
**Form**  
 (8) 41:10 80:17 88:12 91:17 135:14  
 136:9 193:23 195:9  
**Format**  
 (3) 96:6 96:8 131:17  
**Formed**  
 (1) 58:14  
**Formulate**  
 (1) 28:2  
**Fortunately**  
 (1) 126:3  
**Forward**  
 (2) 101:23 131:20  
**Four**  
 (14) 12:12 22:17 51:2 63:24 67:2 72:  
 4 76:3 84:17 86:6 112:2 120:9 126:12  
 161:3 183:13  
**Fourth**  
 (2) 41:5 113:1  
**Fractured**  
 (4) 174:10 174:19 174:22 185:11  
**Fractures**  
 (1) 129:21  
**Frame**  
 (2) 57:18 115:1  
**Framing**  
 (1) 85:9  
**Frantic**  
 (1) 181:6  
**Free**  
 (2) 38:8 38:14  
**Fresh**  
 (2) 159:20 168:17  
**FRIEDMAN**  
 (1) 1:17  
**Friend**  
 (2) 119:7 119:10  
**Friendship**  
 (1) 119:3  
**Front**  
 (4) 19:11 21:12 84:18 105:18  
**Full**  
 (2) 68:9 155:7  
**Furnished**  
 (1) 66:20  
**Furnishes**  
 (1) 6:20  
**Furthering**  
 (1) 187:4  
**Furthest**  
 (1) 131:19

## G

**Game**  
 (1) 48:21  
**Garage**  
 (5) 109:11 109:13 109:14 112:18 113:  
 23  
**Gardner**  
 (1) 127:13

**Gather**  
 (2) 145:23 176:24  
**Gathered**  
 (2) 119:12 176:7  
**General**  
 (8) 16:3 23:19 59:2 75:5 93:7 96:23  
 175:25 186:21  
**Generally**  
 (8) 17:5 40:16 90:20 91:7 93:7 103:  
 10 180:11 181:12  
**Generate**  
 (1) 29:13  
**Generic**  
 (1) 173:23  
**Gentlemen**  
 (9) 3:3 4:19 5:16 41:2 83:13 88:8  
 116:25 136:1 193:17  
**George**  
 (2) 1:16 29:24  
**Gilbert**  
 (58) 1:16 3:7 3:13 3:14 4:3 12:1 29:  
 23 40:3 40:22 41:14 72:24 80:24 81:3  
 81:5 81:7 88:5 95:19 97:16 97:17 98:  
 12 117:11 119:20 126:10 128:6 128:11  
 128:17 131:23 140:2 140:3 151:17 152:  
 22 153:2 156:25 158:6 158:9 160:8  
 160:22 162:6 163:13 167:17 167:19  
 168:5 169:8 169:17 170:17 172:1 173:  
 24 174:3 174:11 175:23 177:13 190:10  
 191:14 191:24 193:2 193:3 193:5 193:  
 14  
**Given**  
 (11) 6:25 11:6 28:13 46:3 78:4 95:9  
 102:12 132:16 136:24 178:18 189:7  
**Glass**  
 (2) 6:18:8  
**GORDON**  
 (1) 1:17  
**Gouged**  
 (1) 117:6  
**Graduated**  
 (1) 5:18  
**Gravity**  
 (1) 116:17  
**Great**  
 (1) 33:24  
**Greatly**  
 (1) 6:11  
**Green**  
 (13) 52:10 69:6 69:20 69:21 164:14  
 164:19 164:25 165:5 165:8 171:11 171:  
 13 171:15 188:25  
**Grooves**  
 (4) 32:22 82:20 82:21 82:24  
**Ground**  
 (3) 18:4 33:7 180:22  
**Group**  
 (42) 6:2 6:3 8:5 8:7 8:10 8:11 9:17  
 9:18 23:6 60:33 60:25 62:8 63:11 74:  
 15 74:16 74:30 75:5 75:8 120:13 120:  
 16 120:23 120:24 120:25 121:1 121:3  
 121:4 121:6 121:8 121:14 121:15 121:  
 16 121:17 121:18 121:19 121:21 126:1  
 126:23 127:9 138:24 172:20 173:8 180:  
 4  
**Grouped**  
 (2) 81:10 138:23  
**Grouping**  
 (25) 5:11 6:1 9:4 16:5 42:24 44:8 60:  
 2 40:18 60:19 60:23 60:24 61:8 61:19  
 61:25 62:4 74:3 74:11 77:24 79:13 81:  
 21 87:22 113:25 120:2 120:4 125:2  
 126:17 173:15 173:19 173:21 172:23  
 172:25 180:8 183:2 183:12 191:20  
**Groupings**  
 (4) 61:13 120:19 123:2  
**Groups**  
 (7) 7:11 10:25 75:2 75:3 120:10 120:  
 12 124:23  
**Guess**  
 (10) 14:21 29:8 50:7 110:16 134:21  
 144:2 157:6 176:25 192:10 192:15  
**Guessing**  
 (1) 48:21

## H

**Hair**  
 (6) 20:5 22:18 22:21 22:25 39:8 73:16  
**Haired**  
 (3) 158:4 167:1 171:1  
**Hairs**  
 (3) 6:1 24:17 72:9  
**Half**  
 (11) 6:14 29:2 61:21 103:8 103:12  
 103:14 105:13 105:13 108:23 108:25  
 184:22  
**Hallway**  
 (1) 32:2  
**Hammer**

(2) 20:25 141:4  
**Hand**  
 (21) 19:11 19:15 20:4 22:16 24:17 40:  
 5 40:6 41:17 44:1 100:19 104:5 104:5  
 104:10 130:4 147:13 147:21 147:22  
 148:9 148:12 156:10 181:9  
**Handed**  
 (16) 40:10 40:16 40:18 42:2 94:19  
 130:25 131:4 132:1 132:13 132:19 132:  
 19 132:20 132:21 185:6 185:6 192:17  
**Handled**  
 (2) 99:25 163:4  
**Handling**  
 (3) 158:18 161:21 166:2  
**Hands**  
 (14) 11:19 19:10 19:10 78:10 94:1  
 155:10 156:6 158:19 163:4 163:4 163:  
 25 164:3 189:8 189:12  
**Hands-on**  
 (2) 11:10 94:1  
**Hard**  
 (9) 22:3 45:21 76:7 82:20 104:13 108:  
 24 109:9 180:21 186:23  
**Head**  
 (18) 18:12 31:17 32:19 33:1 33:10 34:  
 9 34:11 34:12 35:2 36:10 37:9 44:21  
 133:10 133:19 150:11 160:5 160:19  
 175:1  
**Heads**  
 (1) 113:22  
**Healed**  
 (1) 169:2  
**Hear**  
 (4) 44:12 50:7 75:16 126:4  
**Heard**  
 (5) 2:18 61:1 124:24 184:25 186:19  
**Hearsay**  
 (3) 128:12 167:20 167:22  
**Heavier**  
 (3) 146:19 146:23 147:11  
**Heavy**  
 (8) 47:2 71:23 78:12 79:17 82:11 82:  
 15 143:10 143:12  
**Height**  
 (1) 103:10  
**Held**  
 (1) 99:21  
**Help**  
 (8) 9:23 17:15 23:21 26:5 28:1 28:2  
 175:20 187:11  
**Helpful**  
 (4) 15:21 28:18 77:18 102:11  
**Helps**  
 (1) 84:9  
**Hemoglobin**  
 (1) 107:8  
**Hemoglobulins**  
 (1) 5:12  
**Hemolyzed**  
 (1) 49:16  
**Henry**  
 (3) 51:18 52:21 58:14  
**Hereby**  
 (1) 195:4  
**Heretofore**  
 (1) 2:21  
**Herself**  
 (2) 35:6 78:13  
**Hide**  
 (1) 14:18  
**High**  
 (2) 33:11 39:15  
**Higher**  
 (2) 104:13 139:19  
**Highly**  
 (1) 186:25  
**Himself**  
 (1) 113:11  
**Hired**  
 (1) 5:20  
**Hit**  
 (30) 14:25 17:25 18:10 18:14 18:15  
 18:17 18:23 18:25 19:13 20:9 20:12  
 20:25 21:13 21:13 32:23 32:24 33:11  
 33:15 33:16 33:19 33:24 34:13 35:21  
 92:10 103:13 116:16 133:7 139:21 152:  
 3 174:14  
**Hits**  
 (7) 18:4 18:8 20:14 20:18 104:6 104:  
 20 109:2  
**Hitting**  
 (20) 12:11 19:24 19:25 20:17 22:21  
 23:1 37:7 39:12 65:1 92:2 108:24 109:  
 3 109:5 133:6 137:21 140:19 143:21  
 180:21 180:23 181:8  
**Hold**  
 (4) 68:15 70:22 71:3 82:8  
**Home**

[11] 63:17 62:13 62:15 100:23 106:24  
109:17 154:22 164:15 166:18 168:24  
176:10

**Homicide**  
[12] 6:10 24:23 112:21 113:3 114:24  
156:15 157:5 157:8 167:15 175:13 178:  
13 178:18

**Homicides**  
[1] 17:7

**Honor**  
[9] 50:5 60:10 62:22 65:13 76:17 87:  
25 129:7 151:18 160:11

**Honorable**  
[1] 4:18

**Horrible**  
[1] 153:18

**Horseshoe**  
[1] 47:12

**Hospital**  
[2] 170:12 170:13

**Hotel**  
[1] 26:16

**Hour**  
[1] 102:10

**Hours**  
[11] 26:21 27:6 86:14 93:15 101:24  
121:10 134:6 148:22 151:6 166:2 191:  
15

**House**  
[16] 51:10 52:3 58:11 64:8 65:7 106:  
12 106:15 113:10 113:14 118:7 138:18  
139:7 146:24 168:19 169:3 172:5

**Huge**  
[2] 24:14 80:4

**Human**  
[25] 52:15 58:19 59:22 59:24 58:25  
59:5 59:7 59:9 59:11 59:12 59:25 60:  
4 60:14 62:6 62:7 63:4 63:11 74:9 79:  
14 106:4 110:20 112:23 138:21 179:24  
180:5

**Humidity**  
[1] 145:17

**Hundreds**  
[4] 30:1 32:5 32:10 42:16

**Hypotheticals**  
[1] 189:7

## I

**Idea**  
[4] 52:5 53:20 83:8 112:25

**Identification**  
[2] 516 518

**Identified**  
[5] 56:14 58:19 93:9 109:2 157:14

**Identify**  
[3] 11:22 59:1 161:22

**Illinois**  
[1] 7:18

**Illuminate**  
[1] 107:19

**Illusion**  
[1] 9:12

**Impact**  
[24] 20:7 21:18 21:21 23:3 23:10 31:  
1 32:13 32:18 40:13 43:5 43:5 45:14  
46:24 69:4 72:12 73:20 75:18 82:24  
115:9 146:21 161:9 184:3 184:11 188:  
15

**Impacted**  
[1] 41:24

**Impart**  
[1] 12:13

**Imply**  
[1] 43:21

**Implying**  
[1] 139:18

**Important**  
[5] 12:8 13:10 22:8 83:24 180:1

**Importantly**  
[1] 154:3

**Impossible**  
[3] 56:23 148:3 182:2

**Impression**  
[5] 144:16 144:17 144:23 145:2 146:6

**Impressions**  
[1] 66:8

**Imprinted**  
[1] 188:15

**In-line**  
[1] 40:14

**Inaccurate**  
[1] 141:28

**Inch**  
[25] 19:19 21:5 34:12 34:12 42:19 43:  
2 53:7 103:8 103:12 103:15 135:16  
105:17 106:18 105:19 107:19 108:13  
108:23 106:25 110:8 111:24 111:25

112:1 112:4 112:5 181:25

**Inches**  
[15] 20:24 33:6 34:10 39:11 39:19 39:  
22 51:1 51:1 51:2 51:3 61:2 67:10 67:  
3 67:3 112:2

**Incident**  
[1] 71:14

**Incidents**  
[1] 118:18

**Incisor**  
[1] 129:25

**Include**  
[3] 35:8 75:1 173:11

**Included**  
[3] 5:5 10:10 10:15

**Including**  
[2] 23:9 87:16

**Inconclusive**  
[1] 74:14

**Inconsistent**  
[2] 35:15 171:25

**Independent**  
[3] 184:16 184:19 185:3

**Indicate**  
[16] 21:14 40:3 44:4 44:14 62:14 68:  
2 106:9 111:9 127:22 128:4 135:6 158:  
18 159:8 160:4 165:19 172:17

**Indicated**  
[30] 10:9 11:14 26:7 44:25 54:22 58:  
10 65:15 77:11 77:14 100:19 104:15  
112:22 117:11 132:1 134:23 143:5 144:  
9 144:12 147:1 149:15 150:8 155:6  
172:8 176:12 180:1 180:11 186:6 191:  
19 191:25 192:19

**Indicates**  
[9] 44:16 49:15 61:18 69:12 130:20  
132:4 135:6 137:18 140:10

**Indicating**  
[5] 19:12 38:7 87:23 116:24 149:11

**Indication**  
[4] 41:25 43:1 102:11 142:14

**Indicative**  
[2] 115:5 140:14

**Indicator**  
[3] 125:5 125:7 125:16

**Individual**  
[3] 97:24 103:4 186:3

**Individuals**  
[2] 120:10 126:17

**Individuals'**  
[1] 125:3

**Infancy**  
[2] 90:4 90:8

**Infer**  
[2] 133:17 155:13

**Inferences**  
[2] 90:24 167:6

**Information**  
[14] 15:20 62:2 62:3 72:10 78:4 91:1  
102:5 106:21 112:24 113:17 148:21  
149:24 154:11 162:8

**Informed**  
[1] 27:13

**Initial**  
[4] 24:22 46:25 70:4 144:25

**Injured**  
[2] 43:15 92:1

**Injuries**  
[6] 100:2 129:20 133:23 140:25 160:6  
160:21

**Inside**  
[25] 57:1 71:12 82:24 106:20 108:5  
113:10 117:10 118:7 130:12 136:18 139:  
2 141:1 156:21 156:24 158:17 159:15  
162:15 165:21 166:5 166:8 166:19 170:  
6 172:5 176:11 186:23

**Inspections**  
[1] 164:19

**Instance**  
[6] 44:1 92:18 104:12 104:23 105:1  
120:18

**Instead**  
[2] 13:7 101:1

**Institute**  
[2] 5:6 5:9

**Instructed**  
[4] 41:10 88:10 136:9 194:23

**Instruction**  
[1] 194:2

**Instructors**  
[1] 9:16

**Instrument**  
[11] 20:13 20:17 20:18 48:5 48:22 48:  
24 48:25 100:5 101:2 141:20 188:19

**Insufficient**  
[2] 161:1 161:2

**Intensive**

[3] 5:14 11:15 11:16

**Intercept**  
[1] 186:13

**Intercepted**  
[2] 133:20 173:11

**Intercepting**  
[1] 138:9 186:3

**Interest**  
[2] 74:5 187:4

**Interesting**  
[2] 89:18 128:15

**Interference**  
[1] 290:20

**International**  
[5] 7:20 7:22 11:12 11:18 16:8

**Interpret**  
[3] 17:11 36:22 82:23

**Interpretation**  
[4] 29:10 29:22 82:5 87:13

**Interpretations**  
[2] 142:20 91:4

**Interpreting**  
[2] 142:24 78:23

**Interrupted**  
[1] 137:19

**Intervening**  
[1] 104:3

**Interview**  
[1] 99:5

**Interviews**  
[1] 29:3

**Introduced**  
[2] 8:19 8:23

**Invalid**  
[1] 82:25

**Investigating**  
[1] 178:13

**Investigation**  
[7] 15:8 24:23 24:25 61:9 84:13 128:  
3 166:17

**Investigations**  
[1] 6:15

**Investigators**  
[1] 15:16 92:25

**Involved**  
[20] 6:8 6:11 8:15 9:4 10:21 13:2 14:  
2 15:16 25:17 25:24 26:7 91:10 94:13  
95:2 97:12 113:19 138:6 187:12 187:  
13 189:3

**Involvement**  
[1] 102:3

**Involving**  
[1] 138:1

**Issue**  
[2] 194:5 171:18

**Issues**  
[2] 3:21 30:11

**Item**  
[8] 23:9 48:5 48:9 73:25 90:22 90:23  
101:6 133:4

**Items**  
[18] 14:2 14:4 14:6 14:6 68:3 68:5  
69:7 77:16 83:16 85:24 86:1 112:6  
117:11 155:17 166:12 171:13 171:15  
185:16

**Itself**  
[13] 13:11 15:23 30:12 45:10 92:13  
106:8 107:10 112:9 116:7 116:8 138:  
17 143:13 173:3

## J

**January**  
[7] 2:15 3:17 25:13 37:15 49:10 115:  
2 176:15

**Jaw**  
[1] 174:21

**Jaws**  
[1] 174:12

**Jeopardize**  
[1] 188:5

**Jerry**  
[1] 186:24

**Job**  
[3] 35:4 50:22 85:19

**John**  
[1] 73:25

**Journeyman**  
[1] 16:13

**Judge**  
[4] 3:8 12:2 40:24 174:16

**Judge's**  
[1] 11:4

**Judgment**  
[1] 144:13

**July**

[13] 25:19 51:18 71:14 73:9 106:13  
115:1 134:6 154:7 161:14 167:14 169:  
23 170:12 176:15

**Jumping**  
[1] 24:21

**Jurors**  
[1] 11:7

**Jury**  
[37] 3:4 4:20 5:17 8:16 17:3 21:23  
23:13 23:15 25:16 29:3 29:15 34:4 39:  
21 52:5 57:18 60:19 65:4 70:23 71:4  
71:5 72:18 78:2 80:6 82:7 82:20 83:  
14 103:11 116:25 122:23 125:18 132:  
14 132:17 150:11 161:8 175:21 185:18  
192:4

**Justice**  
[1] 2:20

**Justify**  
[3] 102:5 102:8 132:12

## K

**Kansas**  
[1] 11:11

**KATHLEEN**  
[1] 1:20

**Keep**  
[1] 133:8

**Ketchup**  
[1] 18:3

**Keys**  
[2] 166:8 166:10

**Killed**  
[4] 87:7 87:9 87:12 150:7

**Killer**  
[4] 189:2 189:24 191:20 192:17

**Killer's**  
[1] 97:9

**Killing**  
[3] 138:6 172:7 188:12

**Kind**  
[3] 16:19 28:5 192:18

**Kirk**  
[69] 8:23 23:24 24:2 24:19 25:12 36:  
23 37:15 38:6 39:3 41:21 42:15 44:7  
49:10 49:16 63:17 65:22 70:13 77:13  
86:2 89:20 92:17 94:20 114:11 117:22  
118:2 118:16 118:22 118:25 119:3 119:  
13 120:18 121:5 123:4 124:2 124:9  
125:9 125:18 126:9 127:21 128:1 128:  
14 129:3 130:16 130:24 131:8 142:9  
132:23 137:8 137:9 137:12 151:1 176:  
12 177:23 178:3 178:25 182:6 182:12  
184:9 184:13 184:17 185:5 185:15 185:  
19 185:24 190:17 190:19 191:11 193:1  
193:7

**Kirk's**  
[12] 28:13 90:6 95:11 119:12 119:18  
119:24 122:1 122:6 126:18 128:4 132:  
12 185:3

**Kitchen**  
[9] 55:1 55:3 57:13 57:16 58:4 59:10  
61:7 105:4 108:6

**Knee**  
[10] 39:22 39:23 39:25 51:1 51:4 51:  
4 51:6 67:2 67:5 69:1

**Knees**  
[1] 68:10

**Knife**  
[2] 48:18 103:5

**Knowing**  
[5] 60:4 63:3 138:25 138:25 180:6

**Knowledge**  
[6] 17:2 61:17 92:25 94:11 125:6 130:  
13

**Known**  
[7] 78:5 90:7 91:12 98:10 108:5 155:  
19 164:14

## L

**Lab**  
[8] 5:22 5:23 6:7 8:13 10:11 16:25  
61:5 92:25

**Labeled**  
[1] 136:22

**Laber**  
[1] 12:22

**Laboratories**  
[2] 7:18 94:2

**Laboratory**  
[17] 5:10 5:20 6:9 6:9 6:18 6:20 6:  
23 7:17 8:18 10:24 14:7 16:4 59:14 59:  
16 68:22 125:2 183:12

**Labs**  
[1] 8:4

**Lack**  
[2] 68:4 68:11

**Ladies**  
[9] 3:3 4:19 5:16 41:2 83:13 88:7  
116:25 136:3 193:17

**Laid**  
[1] 35:16

**Lake**  
[2] 51:7 56:6 84:6

**Landed**  
[1] 39:25

**Landing**  
[1] 51:23 52:19 54:14 57:6 57:11 57:9 59:4 59:6 59:8 61:6 61:7

**Lane**  
[1] 4:9

**Language**  
[1] 94:6

**Large**  
[46] 23:6 32:12 32:15 36:15 36:18 37:20 41:7 42:8 42:17 43:5 43:16 45:2 47:5 47:9 47:10 48:10 61:22 64:24 70:25 77:6 77:11 77:12 77:21 80:12 84:15 85:18 108:16 115:10 116:6 125:23 126:3 126:21 132:5 141:13 141:11 142:10 143:2 143:6 179:12 180:22 181:1 182:7 183:17 184:3 184:25 184:19

**Larger**  
[9] 14:20 21:6 21:6 43:24 103:8 105:18 108:25 109:4 142:9

**Laser**  
[1] 31:23

**Last**  
[9] 5:3 6:16 16:1 93:13 118:15 118:19 119:5 163:18 193:12

**Late**  
[4] 5:9 5:14

**Latitude**  
[1] 128:20

**Lattes'**  
[1] 125:9

**Law**  
[6] 1:24 6:21 11:4 11:5 154:8 178:13

**Lawyer**  
[1] 136:15

**Lay**  
[2] 13:1 45:7

**Laying**  
[1] 84:15

**Lead**  
[2] 94:1 172:9

**Leading**  
[1] 110:23

**Leads**  
[3] 105:4 105:4 109:12

**eaning**  
[2] 51:6 64:2

**Learn**  
[3] 16:14 94:25 106:20

**Learned**  
[4] 137:3 137:4 153:20 164:13

**Least**  
[22] 23:19 39:10 39:24 53:8 53:13 58:10 61:11 61:20 61:22 62:24 68:9 72:12 94:5 95:13 106:12 110:13 112:11 133:5 187:19 149:24 153:24 184:21

**Leather**  
[6] 68:14 68:14 83:18 86:1 86:3 86:11

**Leave**  
[3] 23:18 65:24 194:3

**Leaving**  
[3] 12:13 62:20 65:18

**Lectures**  
[4] 8:24 11:3 11:6 23:17

**Led**  
[2] 76:3 94:15

**Lee**  
[2] 90:20 98:21

**Left**  
[28] 18:5 18:10 19:16 40:5 40:7 40:10 40:16 40:18 42:2 51:1 67:5 77:9 84:18 84:18 136:25 132:1 132:13 132:19 133:21 134:7 135:9 146:23 147:7 151:14 152:20 166:18 185:6 193:17

**Left-hand**  
[3] 45:13 45:25 54:19

**Left-handed**  
[11] 40:10 40:16 40:18 42:2 130:25 132:1 142:13 132:19 132:21 184:6 192:17

**Leg**  
[6] 21:16 134:7 151:13 151:14 151:24 151:24

**Legs**  
[11] 34:22 35:4 35:7 35:13 149:1 149:2 149:6 150:9 150:9 150:15 150:17

**eland**  
[3] 128:14 176:12 192:11

**Lending**  
[1] 197:5

**Length**  
[1] 181:25

**Leon**  
[1] 125:9

**Less**  
[6] 21:4 104:5 108:13 110:0 136:11 183:4

**Leucomalachite**  
[1] 52:10

**Level**  
[9] 13:12 17:2 27:23 39:22 39:24 39:25 91:20 123:20 124:14

**Library**  
[1] 108:6

**Lift**  
[1] 63:23

**Light**  
[3] 107:5 107:11 107:12

**Lights**  
[1] 114:15

**Likely**  
[13] 43:21 64:9 65:11 73:13 76:6 87:22 117:5 154:20 154:22 157:17 157:22 159:13 190:9

**Likewise**  
[2] 148:15 150:21

**Limit**  
[2] 29:4 85:9

**Limitation**  
[2] 36:8 78:19

**Limitations**  
[1] 143:8

**Limited**  
[3] 29:8 101:8 101:14

**Linda**  
[1] 137:1

**Line**  
[5] 19:29 19:21 40:14 173:12 199:23

**Lines**  
[1] 21:20

**Link**  
[2] 71:2 71:22

**Links**  
[9] 71:24 71:25 73:18 74:20 81:13 82:16 83:12 154:21 161:11

**Liquid**  
[1] 103:13

**Liquid**  
[5] 49:19 91:15 91:19 92:6 126:14

**Listed**  
[1] 38:8

**Listen**  
[1] 194:1

**Living**  
[15] 51:25 54:24 55:9 55:23 56:18 56:19 57:12 58:14 59:8 105:5 107:15 108:3 112:16 157:18 158:17

**Load**  
[2] 124:13 124:17

**Locally**  
[1] 11:2

**Locate**  
[1] 52:17

**Located**  
[3] 51:14 52:5 96:24

**Location**  
[13] 105:21 111:24 111:25 137:19 138:12 139:8 139:8 139:10 139:16 139:19 166:15 167:5 167:11

**Logic**  
[2] 157:12 158:7

**Look**  
[41] 13:19 18:9 18:18 19:14 22:13 31:24 32:14 43:12 45:4 45:6 45:9 45:18 46:18 47:22 62:24 62:25 63:7 71:23 72:3 72:16 74:1 76:8 76:11 76:14 80:13 82:6 115:22 117:15 124:5 136:19 141:13 142:3 142:4 147:16 148:25 149:16 153:10 155:13 170:10 187:19 191:16

**Looked**  
[20] 19:7 24:2 28:6 37:16 37:16 39:5 51:22 51:24 51:25 61:20 64:21 92:24 96:10 103:9 117:18 118:4 118:4 154:17 159:3 159:5

**Looking**  
[20] 17:9 18:16 31:16 33:4 38:5 40:21 43:2 45:5 52:18 53:9 53:10 53:22 72:21 77:16 102:13 117:24 137:13 141:3 157:35 158:13

**Looks**  
[16] 18:5 36:11 42:12 44:6 47:2 47:25 49:20 72:4 77:20 116:16 122:16 138:8 143:20 144:14 147:11 148:7

**Low**  
[1] 32:25

**Lower**  
[6] 54:19 71:21 71:25 82:9 151:2 174:24

**Luke**  
[1] 137:1

**Luminescence**  
[2] 107:13 107:14

**Luminescent**  
[1] 107:9

**Luminol**  
[12] 55:16 67:10 106:22 107:1 107:3 107:7 107:8 109:19 109:21 109:24 110:1 110:5

**Lunch**  
[1] 88:8

**Luncheon**  
[1] 88:17

**Lying**  
[3] 33:13 99:22 162:16

**M**

**Machine**  
[1] 35:20

**Magically**  
[1] 141:4

**Magnitude**  
[1] 59:20

**Mail**  
[1] 34:17

**Main**  
[2] 48:5 75:2

**Maintain**  
[2] 3:21 119:3

**Maintained**  
[1] 8:22

**Major**  
[10] 7:12 17:12 17:24 23:4 82:5 87:18 204:3 120:9 120:12 186:19

**Majoring**  
[1] 91:23

**Majority**  
[1] 93:18

**Male**  
[1] 167:1

**Man**  
[2] 151:16 171:1

**Mandible**  
[1] 174:24

**Mannequin**  
[1] 99:23

**Manner**  
[1] 31:19

**Manual**  
[1] 3:14

**March**  
[3] 3:1 26:10 89:1

**Marcinsky**  
[2] 94:22 100:4

**Marilyn**  
[51] 24:23 26:24 30:20 31:14 34:8 35:15 36:2 38:19 38:23 38:24 42:13 44:10 44:16 54:16 62:8 63:13 68:7 73:16 73:21 74:16 74:21 74:23 77:23 83:23 87:7 87:12 87:20 99:17 115:12 117:18 129:24 121:1 122:12 125:20 129:20 129:24 130:3 130:8 137:21 140:19 143:3 155:2 161:6 172:6 178:13 182:20 183:19 184:1 184:11 184:11 186:4

**Marilyn's**  
[1] 157:6

**Marion**  
[2] 74:12 100:4

**Mark**  
[9] 47:9 47:11 47:15 47:17 48:9 48:19 48:24 49:1 106:18

**Marked**  
[7] 9:10 11:21 55:12 55:12 80:1 136:18 146:8

**Marks**  
[6] 106:22 108:3 108:4 108:9 146:13 146:16

**Marsters**  
[2] 74:18 79:12

**MARTIN**  
[1] 11:20

**Mary**  
[30] 25:3 28:11 39:18 51:3 51:17 52:21 54:6 55:14 58:14 59:15 61:10 61:16 66:24 70:3 74:8 79:12 81:20 84:14 86:7 86:15 110:3 111:9 111:15 134:11 138:1 153:5 164:22 165:4 190:18 190:29

**Mask**  
[1] 176:7

**Mason**  
[5] 1:19 56:3 56:15 57:25 187:24

**Mat**  
[1] 57:3

**Material**  
[10] 28:18 61:13 73:15 78:15 83:21 103:21 106:21 122:20 157:15 186:21

**Materials**

[8] 14:18 17:14 26:11 26:22 28:1 29:12 109:7 113:16

**Mathematics**  
[2] 5:15 91:8

**Matter**  
[9] 12:16 12:19 12:19 27:19 107:23 127:2 127:15 156:8 189:24

**Matters**  
[2] 4:25 10:15

**Mattress**  
[3] 39:15 49:12 174:7

**Maxilla**  
[2] 174:10 174:20

**Maximum**  
[1] 63:20

**McCrone**  
[1] 5:5

**Mean**  
[20] 12:10 17:15 23:10 68:6 91:19 92:9 92:10 94:17 110:24 118:11 121:9 123:25 132:20 132:21 138:7 150:15 155:13 158:7 166:20 174:19

**Meaning**  
[5] 23:6 47:4 59:21 67:4 73:11

**Means**  
[2] 21:11 46:23

**Meant**  
[1] 158:3

**Measure**  
[3] 145:18 145:24 145:25

**Measured**  
[2] 39:18 51:3

**Measurement**  
[1] 37:2

**Measurements**  
[2] 107:21 108:14

**Measuring**  
[2] 100:23 172:19

**Mechanism**  
[16] 15:6 31:3 42:23 43:17 43:19 87:21 91:23 115:8 117:14 147:3 172:14 183:18 183:23 184:3 184:10 190:9

**Mechanisms**  
[4] 15:2 22:5 23:8 79:23

**Medical**  
[4] 15:15 40:19 56:21 113:19

**Meet**  
[7] 97:12 97:21 97:23 97:24 98:2 98:21 99:7

**Meeting**  
[2] 11:12 27:3

**Meetings**  
[1] 11:9

**Member**  
[8] 7:11 7:13 7:14 7:16 7:19 7:22 8:3 8:6

**Members**  
[1] 7:17

**Menstruating**  
[1] 113:9

**Mention**  
[3] 28:21 126:25 128:1

**Mentioned**  
[17] 11:7 22:1 42:7 57:11 60:18 73:7 79:11 91:2 94:16 94:18 106:2 106:3 113:14 114:6 119:6 187:14 187:15

**Mere**  
[1] 123:1

**Met**  
[8] 26:6 97:17 98:3 115:19 150:22 151:25 152:11 177:5

**Method**  
[5] 76:2 120:5 120:5 120:7 124:24

**Methodology**  
[1] 177:24

**Methods**  
[1] 187:9

**Michigan**  
[1] 7:18

**Microscope**  
[1] 5:7

**Microscopes**  
[1] 8:4

**Microscopy**  
[2] 7:14 8:4

**Mid**  
[1] 41:3

**Mid-morning**  
[1] 41:3

**Middle**  
[1] 136:13

**Midwest**  
[5] 7:16 8:11 9:7 9:24 11:7

**Might**  
[10] 40:14 98:9 102:11 108:3 118:5

128:14 128:15 128:15 185:20 185:25  
**Millimeter**  
 (2) 21:4 73:5  
**Minimum**  
 (1) 16:7 16:9 133:5  
**Minnesota**  
 (17) 4:10 5:20 5:21 5:25 6:17 6:21 7:14 7:19 8:1 10:18 10:24 10:25 11:5 11:17 23:3 25:14 183:10  
**Minute**  
 (4) 50:6 49:8 151:15 156:3  
**Minutes**  
 (9) 16:6 75:25 86:4 86:7 136:11 155:11 156:4 156:9 156:18  
**Mirror**  
 (1) 34:11  
**Mislead**  
 (1) 65:4  
**Misrepresent**  
 (1) 288:7  
**Miss**  
 (1) 28:7  
**Mistake**  
 (1) 41:3  
**Mitchell**  
 (1) 11:4  
**Mixed**  
 (1) 40:12  
**Mixture**  
 (2) 122:17 122:18  
**MN**  
 (5) 60:25 74:20 75:4 75:6 172:25  
**Mock**  
 (1) 16:4  
**Mohammad**  
 (1) 136:21  
**Moisture**  
 (3) 70:6 70:16 71:11  
**Moment**  
 (1) 72:20  
**Monday**  
 (1) 1:17  
**Money**  
 (1) 27:16  
**Monies**  
 (1) 9:24  
**Month**  
 (1) 51:20  
**Months**  
 (5) 114:25 114:25 176:13 178:25 179:17  
**Morning**  
 (12) 3:1 3:2 3:4 3:5 3:7 4:4 19:10 41:3 122:8 134:6 134:24 174:11  
**Most**  
 (20) 11:14 12:8 37:7 42:14 43:14 43:21 62:16 64:9 83:24 87:22 105:17 117:5 120:1 154:3 154:20 154:22 156:17 162:12 181:25 190:9  
**Motion**  
 (3) 100:14 100:17 104:11  
**Motions**  
 (1) 100:14  
**Mouth**  
 (1) 129:21  
**Move**  
 (3) 40:5 104:17 152:4  
**Moved**  
 (9) 13:23 31:6 34:2 34:20 46:16 148:12 150:1 150:14 152:2  
**Movement**  
 (1) 148:9  
**Moving**  
 (1) 103:25  
**Multiple**  
 (1) 99:22  
**Murder**  
 (29) 30:12 30:15 30:17 30:25 62:10 62:20 63:13 64:12 64:20 65:7 68:18 96:11 97:6 99:17 104:24 104:34 112:17 117:24 141:1 155:2 155:4 156:15 159:15 162:15 168:14 168:20 168:23 172:13 176:11  
**Murdered**  
 (1) 68:7  
**Murderer**  
 (2) 38:18 40:3  
**Murdock**  
 (1) 126:19  
**Must**  
 (9) 25:1 25:3 28:16 48:19 64:23 85:5 30:21 158:24 180:18

**N**

**N/A**

(2) 1:9 2:8

**Nada**  
 (1) 191:11  
**Name**  
 (8) 4:5 95:3 95:9 97:8 97:8 97:24 99:9 99:12  
**Named**  
 (1) 97:10  
**Namely**  
 (1) 60:2  
**Names**  
 (2) 98:17 187:15  
**Narrow**  
 (2) 140:22 140:24  
**National**  
 (2) 7:20 188:6  
**Nature**  
 (5) 28:1 65:17 178:18 181:7 181:15  
**Near**  
 (3) 45:3 56:8 72:11  
**Necessarily**  
 (3) 122:14 185:5 185:10  
**Necessitate**  
 (1) 92:6  
**Need**  
 (19) 12:20 16:9 17:1 24:5 40:3 59:22 59:23 60:3 64:4 71:6 71:7 72:13 72:13 72:16 102:5 116:1 116:1 116:4 176:1  
**Needed**  
 (1) 6:24  
**Needs**  
 (1) 142:24  
**Negative**  
 (1) 67:15  
**Neighbor**  
 (1) 113:10  
**Neutral**  
 (2) 12:14 12:21  
**Never**  
 (7) 28:16 64:2 95:4 102:8 102:24 101:11 170:10  
**Nevertheless**  
 (1) 29:12  
**New**  
 (2) 11:9 183:2  
**Newspapers**  
 (1) 193:25  
**Next**  
 (8) 5:19 5:21 13:10 34:8 36:6 67:1 110:23 134:24  
**Night**  
 (4) 50:13 50:16 135:3 153:25  
**Nine**  
 (2) 55:2 55:24  
**Non**  
 (1) 59:10  
**None**  
 (11) 67:8 68:25 82:10 82:13 82:17 134:11 138:21 138:23 138:24 159:4 178:6  
**Nonexistent**  
 (1) 149:21  
**Nonsense**  
 (2) 124:13 124:17  
**Normal**  
 (1) 103:10  
**Normally**  
 (4) 91:22 103:8 103:16 108:21  
**North**  
 (2) 77:27 37:24  
**Northeast**  
 (2) 38:21 38:21  
**Northeastern**  
 (1) 11:19  
**Nose**  
 (2) 66:11 117:7  
**Notation**  
 (1) 111:15  
**Note**  
 (1) 149:17  
**Notes**  
 (5) 25:2 68:2 107:20 111:9 195:8  
**Nothing**  
 (8) 34:20 63:25 65:7 65:8 113:2 139:17 149:7 156:13  
**Notice**  
 (1) 83:4  
**Notion**  
 (5) 20:7 21:23 28:21 60:18 183:16  
**NOVA**  
 (19) 25:21 26:7 26:14 26:21 94:14 94:21 94:23 95:15 100:2 169:13 169:21 173:16 186:17 186:17 186:19 186:25 187:6 187:16 187:20  
**Number**

(67) 10:25 11:13 20:5 20:12 23:8 23:20 26:6 28:9 29:5 30:19 30:22 31:10 33:4 36:5 36:24 38:4 43:1 43:25 45:5 45:10 47:19 47:20 49:9 51:13 52:9 53:10 53:16 54:10 54:17 55:2 55:11 55:24 57:8 61:20 61:25 64:3 64:7 64:20 30:19 71:25 71:21 73:13 79:12 80:10 92:7 83:16 91:2 97:14 98:10 101:15 102:21 106:1 113:5 114:3 114:11 129:23 133:1 133:5 133:9 133:10 139:15 140:5 145:11 150:11 161:10 180:1 190:12  
**Numbers**  
 (2) 55:7 136:23  
**O**  
**Oath**  
 (3) 89:4 174:2  
**Object**  
 (14) 4:22 50:5 50:23 60:10 62:22 64:14 64:15 92:6 100:2 140:25 144:23 145:1 146:5 181:16  
**Object**  
 (43) 3:17 16:22 50:18 65:12 68:20 69:9 80:16 85:7 85:14 86:20 87:10 87:24 95:19 119:20 126:10 128:6 128:17 131:23 141:17 152:22 153:2 156:25 158:6 158:9 160:8 160:22 162:6 163:13 167:17 167:19 168:5 169:8 169:9 169:17 170:17 172:1 173:24 174:3 174:11 175:23 179:7 191:13 192:2  
**Objects**  
 (5) 65:1 91:15 91:18 154:18 158:16  
**Observation**  
 (4) 36:21 49:24 49:25 143:18  
**Observations**  
 (10) 29:14 30:14 35:25 49:14 83:10 88:3 174:1 161:13 186:7 186:10  
**Observe**  
 (4) 29:5 80:19 93:1 161:17  
**Observed**  
 (13) 34:19 42:15 43:7 44:8 57:8 57:15 72:2 73:23 75:25 112:7 112:16 132:23 162:16  
**Obtained**  
 (4) 62:3 78:3 117:14 118:9  
**Obviously**  
 (6) 13:25 21:12 28:22 56:22 157:7 158:11  
**Occupation**  
 (3) 4:11  
**Occur**  
 (3) 132:8 155:3 155:4  
**Occurred**  
 (9) 114:25 147:25 154:10 156:21 156:32 157:14 157:20 158:11 167:2  
**Occurring**  
 (3) 30:23 31:4 104:11  
**Offense**  
 (1) 157:20  
**Offer**  
 (4) 34:21 35:24 68:17 83:9  
**Offered**  
 (1) 113:6  
**Offering**  
 (1) 16:20  
**Office**  
 (13) 11:3 28:13 56:20 57:1 80:9 81:14 112:18 136:22 157:7 159:1 176:18 178:9 178:10  
**Officer**  
 (2) 106:13 167:15  
**Official**  
 (3) 1:25 195:2 195:20  
**Often**  
 (1) 15:19 21:11 104:8  
**Ohio**  
 (10) 1:1 1:10 1:26 3:1 3:9 3:20 7:18 162:12 195:4 195:20  
**Old**  
 (2) 4:17 4:18  
**Once**  
 (6) 30:22 31:5 33:23 44:20 45:21 91:18  
**One**  
 (100) 8:3 12:14 14:21 16:10 18:20 22:7 22:9 22:23 23:7 24:19 27:12 27:12 30:4 30:11 30:19 34:5 37:20 41:3 42:14 42:19 43:2 44:24 48:6 52:6 52:9 52:10 53:2 53:4 53:5 53:8 53:20 53:21 57:12 58:24 59:7 59:9 61:6 63:12 64:6 65:5 65:16 66:21 67:1 67:10 73:13 74:14 76:4 77:20 80:10 86:5 87:13 91:16 91:23 93:15 93:19 95:13 102:11 105:3 108:18 109:25 110:5 111:10 111:11 111:17 111:19 111:22 111:25 112:1 112:5 114:1 115:22 116:15 117:16 118:1 1 120:12 123:11 123:16 124:7 129:2 133:5 136:3 137:15 138:2 138:2 138:8 138:16 142:25 143:8 144:4 149:2 151:24 151:24 153:15 162:23 164:22 173:4 186:1 186:7 186:13 188:1 189:3 189:6  
**One-eighth**

(2) 111:25 112:5  
**One-fourth**  
 (1) 112:1  
**One-sided**  
 (1) 188:1  
**One-week**  
 (3) 11:16 16:10 93:20  
**Ones**  
 (1) 59:1  
**Ongoing**  
 (1) 35:3  
**Onward**  
 (1) 106:14  
**Open**  
 (2) 177:4 180:20  
**Opened**  
 (3) 57:6 103:18 175:5  
**Opening**  
 (1) 80:7  
**Operation**  
 (1) 6:11  
**Operations**  
 (1) 6:7  
**Opinion**  
 (46) 16:18 25:5 33:13 34:21 38:20 39:2 41:10 43:16 47:21 61:12 63:7 63:15 68:17 68:22 68:23 73:1 73:6 73:7 73:18 74:24 79:21 82:3 83:14 88:13 130:5 130:24 131:10 131:15 133:22 134:4 136:9 138:5 154:22 155:17 158:22 161:2 168:13 183:16 183:20 184:8 184:12 184:14 184:16 184:19 189:23 193:23  
**Opinions**  
 (10) 16:20 28:3 29:1 29:14 40:19 83:10 102:6 102:8 102:13 119:24  
**Opportunity**  
 (7) 3:10 97:12 110:2 129:12 129:14 153:24 164:8  
**Opposed**  
 (11) 75:18 92:21 100:16 103:20 103:21 105:10 131:13 132:32 161:23 168:15 183:9  
**Opposing**  
 (1) 188:3  
**Optical**  
 (1) 53:11  
**Oral**  
 (1) 175:13  
**Order**  
 (7) 28:25 59:21 94:22 102:5 115:20 117:16 133:3  
**Organization**  
 (6) 6:19 7:19 7:20 8:3 10:1 11:4  
**Organizations**  
 (3) 7:9 7:12 11:14  
**Origin**  
 (4) 59:21 73:3 74:4 183:9  
**Original**  
 (7) 24:24 28:17 33:2 36:12 79:7 102:9 102:10  
**Originally**  
 (3) 29:3 56:21 79:23  
**Originate**  
 (1) 33:12  
**Originating**  
 (2) 32:20 183:18  
**Otherwise**  
 (4) 38:2 157:8 157:10 159:21  
**Ottawa**  
 (1) 5:13  
**Outline**  
 (5) 47:21 47:23 144:2 144:6 144:9  
**Outlined**  
 (1) 24:12  
**Outside**  
 (7) 10:18 48:10 104:23 164:21 164:23 165:10 166:13  
**Overall**  
 (2) 54:9 93:7  
**Overhead**  
 (2) 29:19 131:13  
**Overlap**  
 (4) 14:23 21:23 22:5 133:8  
**Overlapping**  
 (1) 162:1  
**Overnight**  
 (1) 123:13  
**Overruled**  
 (28) 16:23 50:19 60:11 64:18 65:14 68:21 69:14 87:1 87:11 88:1 95:21 119:21 126:11 128:20 131:24 153:3 157:1 158:10 160:23 162:9 163:14 169:10 169:21 174:18 175:24 179:8 191:14 192:5  
**Overstate**  
 (1) 13:9  
**Overtaken**

[1] 84:0  
**Overview**  
[1] 23:20  
**Own**  
[3] 104:7 15:18 75:9

**P**

**Page**

[6] 111:19 127:25 127:25 137:3 169:7  
170:15

**Paid**

[2] 56:15 81:3

**Paint**

[1] 8:00

**Pair**

[2] 66:24 67:25

**Pajama**

[3] 150:22 151:3 151:24

**Pajamas**

[2] 151:1 152:3

**Pant**

[1] 134:7

**Pants**

[18] 38:9 39:13 66:24 67:9 67:25 68:  
5 68:23 69:2 84:16 84:23 85:23 86:6  
87:16 134:10 134:23 186:12 186:16  
190:2

**Paper**

[2] 5:9 21:16

**Parking**

[1] 309:10

**Part**

[11] 3:22 15:12 15:17 47:1 54:9 55:  
22 84:8 80:11 137:23 174:24 188:17

**Partially**

[1] 107:7

**Participant**

[1] 138:3

**Participate**

[2] 94:23 187:3

**Participated**

[3] 56:1 125:14 187:15

**Participating**

[1] 125:4

**Participation**

[1] 125:18

**Particles**

[2] 5:7 141:6

**Particular**

[103] 13:24 15:7 21:8 30:13 71:20 83:  
16 84:21 86:2 86:4 87:4 90:16 90:21  
90:22 90:23 90:25 91:18 92:6 92:13  
92:14 93:3 97:13 98:5 102:18 103:7  
104:22 105:1 105:8 105:22 107:6 107:  
18 108:3 108:11 108:12 110:7 111:15  
111:17 114:10 115:4 115:21 115:23  
116:8 116:8 116:13 116:20 117:2 118:  
3 119:24 120:18 125:11 125:12 126:5  
126:19 127:1 127:23 130:14 131:18  
131:21 132:25 133:12 133:20 145:1  
135:3 138:12 139:1 140:14 140:25 141:  
1 141:7 143:14 143:25 144:2 144:9  
145:16 145:18 145:22 145:24 146:6  
146:16 148:18 149:10 153:8 153:14  
154:18 155:1 155:17 156:11 159:19  
160:16 162:20 162:24 164:9 164:10  
164:19 165:8 166:3 166:15 171:5 173:  
17 176:3 176:16 176:22 176:23 177:2  
**Particularly**  
[1] 150:8

**Parts**

[1] 37:6

**Party**

[1] 173:20

**Pass**

[4] 17:1 71:6 71:8 72:18

**Past**

[2] 7:10 7:15

**Path**

[2] 56:8 104:8

**Pathologist**

[1] 133:8

**Patrol**

[1] 167:15

**Pattern**

[58] 7:23 12:7 12:24 15:9 15:22 15:  
25 16:9 16:20 17:4 17:16 19:4 18:13  
19:25 20:1 20:8 21:20 21:23 22:3 22:  
24 23:5 24:6 24:20 24:24 27:21 35:14  
39:4 42:2 49:4 59:19 66:15 67:21 72:  
13 73:2 73:22 90:18 90:22 93:22 115:  
22 116:1 116:2 116:4 117:25 127:11  
132:6 133:22 132:25 137:13 161:2 161:  
17 173:2 177:17 177:25 178:15 178:19  
91:11 18:20 187:6 188:14

**Patterns**

[18] 5:15 11:19 12:25 14:23 15:11 19:  
8 22:6 34:10 24:16 25:6 25:8 25:25  
35:19 42:1 87:4 90:18 90:20 162:1

**Paul**

[29] 31:23 41:2 41:7 81:22 100:4 141:2 17:  
15 39:2 41:11 44:7 53:7 84:10 80:9  
94:20 118:16 120:1 123:6 125:9 127:  
31 128:1 128:14 176:12 177:15 184:17  
185:14 185:19 185:24 190:12 190:17

**Pay**

[4] 37:16 37:17 23:18 107:11

**PBS**

[2] 186:18 186:25

**People**

[47] 8:12 8:15 11:17 12:11 12:24 13:  
22 15:2 16:4 16:7 16:9 16:11 16:12  
16:13 16:14 22:9 23:3 24:20 26:6 28:  
10 39:3 39:4 42:20 49:14 60:23 73:18  
85:5 85:11 85:19 90:8 90:14 97:1 97:  
17 97:19 92:23 93:1 93:21 98:10 120:  
10 123:25 124:18 128:8 128:5 188:20  
174:2 187:1 187:14 189:12

**Peoples**

[1] 95:2

**Percent**

[5] 75:5 75:6 75:7 75:7 121:1

**Percentage**

[1] 74:25

**Perfect**

[3] 178:3 178:5 179:6

**Perform**

[4] 60:22 94:3 145:14 146:1

**Performed**

[6] 60:22 63:18 129:19 164:19 164:22  
176:11

**Period**

[10] 93:12 96:7 144:25 145:9 146:3  
155:24 156:4 165:11 165:14 165:22

**Permission**

[2] 17:18 29:18

**Permit**

[4] 41:8 88:10 136:7 183:1

**Perpetrate**

[1] 84:5

**Perpetrator**

[14] 14:3 21:16 30:24 40:17 68:8 78:  
1 78:14 84:8 87:15 87:22 117:6 117:  
10 130:3 157:12

**Person**

[43] 13:7 15:14 16:16 16:24 25:9 38:  
16 40:16 44:11 44:17 68:15 68:13 63:  
15 63:12 65:2 65:5 65:13 83:21 85:19  
99:10 99:13 103:25 104:4 111:18 126:  
20 132:20 132:6 137:15 137:21 138:8  
138:12 138:16 148:1 155:19 158:19  
161:20 161:24 162:2 177:4 178:4 173:  
19 179:9 185:7 189:8

**Person's**

[1] 190:7

**Personal**

[1] 27:23

**Personnel**

[1] 8:13

**Perspective**

[1] 49:3

**Peter**

[4] 95:8 95:10 98:22 126:14

**Phenomenon**

[2] 90:17 96:12

**Phenylethylene**

[1] 52:11

**Photo**

[7] 54:4 71:8 72:25 78:18 116:22 141:  
13 142:25

**Photograph**

[44] 29:6 31:19 31:25 33:2 33:5 36:8  
36:12 36:18 49:14 49:15 52:10 66:22  
70:14 70:16 70:20 70:21 73:8 73:9 73:  
10 75:22 76:24 78:20 78:22 80:4 80:  
10 80:21 81:12 82:4 82:6 82:18 114:  
21 140:6 141:17 141:19 143:8 146:9  
149:2 149:3 149:15 153:15 153:16 165:  
19 178:24 179:16

**Photographed**

[5] 31:15 36:21 76:1 151:9 170:25

**Photographer**

[1] 81:13

**Photographs**

[54] 14:10 14:12 14:13 28:14 28:16  
28:22 28:24 29:4 29:9 29:20 34:10 38:  
10 42:5 52:4 61:16 66:21 73:25 76:9  
77:15 79:3 79:8 79:15 80:20 81:15 81:  
18 102:10 102:12 102:16 102:18 102:  
23 106:17 109:15 117:20 117:22 118:2  
133:15 139:9 139:17 143:8 144:3 147:  
17 149:21 150:13 150:25 153:10 154:  
16 161:15 177:7 179:12 179:14 184:20  
184:24 184:24 185:1

**Photos**

[2] 53:11 135:23

**Physical**

[3] 16:4 94:9 171:6

**Physically**

[1] 30:22

**Physics**

[1] 5:15 91:6 91:7

**Pick**

[2] 72:25 101:6

**Picked**

[2] 80:17 101:6

**Picture**

[2] 42:11 84:2

**Pictures**

[5] 32:10 37:5 44:23 79:19 112:12

**Piece**

[1] 83:18

**Pieces**

[2] 20:15 20:21

**Pillow**

[53] 31:20 31:20 36:9 37:4 37:9 37:  
10 37:11 44:19 44:21 44:22 44:24 45:  
1 45:3 45:6 45:7 45:9 45:11 45:15 45:  
19 46:3 46:4 46:4 46:10 46:12 46:19  
46:20 47:4 47:6 48:4 140:1 140:11  
140:12 140:16 141:14 141:25 142:10  
142:13 142:16 142:19 142:20 142:21  
143:1 143:4 143:12 143:18 143:20 144:  
30 144:24 145:2 146:3 146:5 188:10  
188:19

**Pillows**

[2] 145:23 145:24

**Pinning**

[1] 132:15

**Pioneer**

[1] 177:23

**Pioneering**

[1] 34:15

**Pipet**

[1] 101:1

**Place**

[14] 32:25 43:13 72:9 134:15 148:2  
154:24 157:4 157:5 157:9 158:1 161:  
25 170:6 170:22 190:3

**Placed**

[11] 35:11 99:24 102:19 143:14 144:  
24 145:1 145:16 159:9 164:25 165:15  
166:12

**Placing**

[2] 37:1 166:5

**Plaintiff**

[4] 1:7 1:18 2:7 3:21

**Plaintiff's**

[8] 9:11 9:17 11:22 54:7 66:19 114:  
12 136:19 141:15

**Platform**

[2] 105:3 105:13

**Play**

[1] 15:9

**Pleadings**

[1] 2:21

**Pleas**

[4] 1:3 2:3 145:13 195:7

**Pocket**

[1] 163:9

**Pockets**

[2] 67:13 84:17

**Podium**

[3] 13:18 13:19 17:19

**Point**

[20] 9:5 13:10 15:18 23:22 23:4 31:  
21 31:25 34:9 34:20 78:2 78:5 88:9  
90:2 95:13 129:1 131:18 132:24 166:  
24 169:11 185:20

**Pointed**

[3] 116:14 117:16 125:9

**Pointer**

[1] 31:23

**Pointing**

[7] 18:13 22:15 31:19 33:6 33:7 57:  
14 71:10

**Points**

[1] 186:1

**Police**

[6] 6:22 11:1 51:19 167:16 178:10  
178:12

**Polish**

[2] 83:19 83:20

**Pool**

[2] 20:11 48:14

**Poor**

[3] 70:16 153:15 166:1

**Population**

[6] 75:1 75:5 75:6 75:6 75:7 121:2

**Porch**

[4] 52:2 56:6 56:12 56:13

**Porous**

[3] 102:7

**Portion**

[11] 82:9 105:10 105:10 109:11 110:  
35 110:25 111:5 130:19 133:17 146:3  
157:25 174:21 174:25

**Portions**

[1] 127:19

**Portrayed**

[2] 97:3 97:4

**Position**

[46] 29:7 30:20 31:6 31:8 33:18 33:  
19 33:21 33:23

(1) 13:12  
**Probability**  
 (1) 130:15  
**Probable**  
 (1) 44:4  
**Proceed**  
 (6) 30:2 30:10 81:10 84:7 87:1 88:2  
**Proceeded**  
 (1) 5:21  
**Proceedings**  
 (6) 1:13 3:12 195:6 195:10 195:11 195:13  
**Process**  
 (9) 62:3 75:10 98:24 106:22 107:23 109:19 109:21 123:6 144:18  
**Processed**  
 (1) 106:1  
**Processing**  
 (1) 12:8  
**Produce**  
 (5) 64:4 96:20 133:3 140:25 146:25  
**Produced**  
 (21) 13:6 24:11 42:2 42:22 43:5 48:2 60:7 72:6 72:8 72:10 72:11 75:20 76:2 76:4 91:25 113:1 113:13 133:16 155:21 183:25 184:2  
**Producing**  
 (1) 15:3  
**Production**  
 (4) 26:7 26:21 76:7 162:2  
**Productions**  
 (2) 99:11 99:12  
**Professional**  
 (3) 78 9:12 11:6  
**Professor**  
 (4) 4:24 8:22 24:3 119:7  
**Professor/student**  
 (1) 14:4  
**Profile**  
 (1) 175:13  
**Profiling**  
 (1) 172:24  
**Program**  
 (9) 94:14 94:23 95:15 97:9 99:6 173:16 186:18 186:25 188:7  
**Programs**  
 (1) 186:20  
**Project**  
 (3) 53:5 94:21 187:3  
**Projector**  
 (3) 1:4 15 45:23 53:4  
**Promise**  
 (1) 177:14  
**Promote**  
 (2) 8:1 8:6  
**Prop**  
 (3) 190:1 101:5 166:1  
**Proper**  
 (1) 16:24  
**Properties**  
 (1) 24:2  
**Propose**  
 (1) 12:23  
**Prosecution**  
 (2) 85:12 118:24  
**Prosecutor**  
 (1) 12:18  
**Prosecutor's**  
 (1) 178:9  
**Protective**  
 (1) 175:9  
**Protects**  
 (1) 17:3  
**Proved**  
 (1) 105:13  
**Provide**  
 (1) 135:8  
**Provided**  
 (9) 27:25 79:3 102:4 102:16 133:19 108:19 113:17 128:15 149:25  
**Proximity**  
 (3) 160:5 160:19 161:6  
**Public**  
 (4) 11:3 25:20 186:20 186:21  
**Publication**  
 (1) 9:21  
**Published**  
 (1) 145:21  
**Puddle**  
 (1) 34:17  
**Pull**  
 (1) 116:17  
**Pulled**  
 (4) 14:13 45:19 130:18 148:17

**Purports**  
 (1) 136:20  
**Purpose**  
 (4) 93:24 101:13 101:14 101:19  
**Pursuing**  
 (1) 83:23  
**Pushed**  
 (1) 146:23  
**Pushing**  
 (1) 71:17  
**Put**  
 (31) 9:8 11:16 13:20 16:11 16:11 20:23 13:2 47:1 48:9 51:16 63:22 66:1 75:22 75:23 76:24 80:6 81:14 82:7 86:5 86:15 107:6 145:18 148:3 148:6 149:22 166:8 166:21 171:12 171:15 183:7 191:17  
**Puts**  
 (1) 123:9  
**Putting**  
 (1) 26:4

## Q

**Qualifications**  
 (1) 15:24  
**Quality**  
 (1) 28:15  
**Quantify**  
 (1) 104:23  
**Quantities**  
 (1) 145:14  
**Quantity**  
 (1) 110:14  
**Quarter**  
 (8) 19:19 57:7 105:15 105:17 109:19 107:19 108:13 110:8  
**Queen**  
 (1) 166:2  
**Questioned**  
 (2) 67:16 67:17  
**Questions**  
 (17) 12:17 13:5 13:22 27:13 30:13 58:8 84:3 88:6 94:5 128:23 135:23 138:5 140:1 146:11 151:22 190:11 191:24  
**Quickness**  
 (1) 124:4  
**Quite**  
 (1) 31:18

## R

**Radiate**  
 (4) 31:25 34:19 35:20 46:1  
**Radiated**  
 (3) 34:8 36:10 37:17  
**Radiating**  
 (8) 31:17 31:20 34:16 37:7 37:13 44:25 45:12 133:8  
**Radio**  
 (1) 194:1  
**Rain**  
 (1) 18:8  
**Raised**  
 (1) 143:23  
**Random**  
 (3) 31:19 32:11 32:17  
**Range**  
 (1) 7:7  
**Ransacking**  
 (4) 156:23 157:4 157:18 158:1  
**Rate**  
 (2) 123:21 124:14  
**Rates**  
 (1) 175:4  
**Rather**  
 (1) 154:14  
**Ratio**  
 (1) 18:19  
**Razor**  
 (1) 112:2  
**RDR/CRR**  
 (1) 195:19  
**Reached**  
 (4) 86:16 86:19 169:3 169:4  
**React**  
 (1) 107:8  
**Reacting**  
 (3) 123:11 123:12 123:12  
**Reaction**  
 (7) 55:4 55:17 67:9 67:13 167:11 169:20 112:13  
**Reactions**  
 (1) 107:17  
**Read**  
 (19) 24:18 44:14 50:9 110:2 111:22 124:9 127:18 127:19 128:3 129:12 153:

31 153:24 158:24 167:3 167:24 167:24 168:7 190:20 193:25  
**Readily**  
 (1) 32:10  
**Reading**  
 (4) 16:6 103:2 107:20 165:4  
**Ready**  
 (7) 41:6 88:15 121:11 136:5 136:5 169:13 193:18  
**Real**  
 (2) 175:25 181:13  
**Realize**  
 (2) 14:13 14:20  
**Really**  
 (15) 8:19 9:2 9:23 9:24 11:19 16:12 17:8 25:14 38:6 49:24 92:24 96:18 109:6 182:7 185:1  
**Rear**  
 (2) 64:18 163:9  
**Reason**  
 (8) 34:10 87:18 96:9 103:16 133:22 152:3 171:24 179:21  
**Reasonable**  
 (5) 86:16 112:20 156:13 171:3 193:23  
**Reasons**  
 (8) 17:12 48:6 71:16 87:12 106:1 145:3 180:17 189:15  
**Receive**  
 (2) 106:16 46:24  
**Received**  
 (18) 4:31 9:23 26:13 26:17 27:8 28:19 28:18 28:19 70:14 70:18 70:22 89:12 102:8 102:21 117:13 136:25 184:21 185:1  
**Recently**  
 (5) 5:12 26:23 126:7 126:13 130:7  
**Recess**  
 (1) 41:12 88:17 136:16  
**Recognition**  
 (1) 93:25  
**Recognizable**  
 (1) 93:8  
**Recognize**  
 (1) 187:23  
**Recognized**  
 (1) 90:9  
**Reconstruct**  
 (2) 17:11 37:19  
**Reconstructed**  
 (1) 175:1  
**Record**  
 (5) 4:6 9:19 86:25 114:11 195:11  
**Recorded**  
 (1) 3:18  
**Records**  
 (1) 107:8  
**Recreation**  
 (1) 80:3  
**RECROSS-EXAMINATION**  
 (1) 190:14  
**Red**  
 (1) 83:20  
**Reddish**  
 (1) 32:19  
**Redirect**  
 (2) 177:10 177:12  
**Reenact**  
 (1) 94:17  
**Reenactment**  
 (3) 96:15 99:16 169:14  
**Reese**  
 (3) 47:21 173:6 187:25  
**Reexamined**  
 (1) 42:15  
**Reference**  
 (6) 53:18 81:6 100:24 108:15 109:16 127:15  
**References**  
 (1) 128:10  
**Referred**  
 (2) 32:3 32:9  
**Referring**  
 (5) 49:10 73:20 77:3 178:23 183:3  
**Regarding**  
 (7) 10:15 10:15 30:15 35:25 86:17 185:6 189:24  
**Regardless**  
 (1) 171:29  
**Region**  
 (1) 38:9  
**Regional**  
 (1) 7:19  
**Regular**  
 (1) 113:20  
**Relate**

(1) 102:18  
**Related**  
 (3) 84:4 112:21 116:9  
**Relates**  
 (1) 119:18  
**Relating**  
 (1) 7:25  
**Relation**  
 (3) 108:17 123:21 123:23  
**Relationship**  
 (1) 24:4  
**Relative**  
 (1) 82:8  
**Reliable**  
 (2) 74:12 183:15  
**Reluctant**  
 (1) 191:25  
**Rely**  
 (3) 49:13 111:3 126:8  
**Remain**  
 (3) 89:4 146:4 173:4  
**Remember**  
 (4) 98:16 99:9 99:12 140:1  
**REMEMBERED**  
 (1) 2:15  
**Remind**  
 (1) 88:9  
**Removal**  
 (7) 36:19 44:6 72:15 73:14 154:22 155:3 170:6  
**Remove**  
 (3) 36:17 162:23 163:23  
**Removed**  
 (21) 36:12 45:19 59:4 59:13 59:15 61:4 75:23 77:13 77:24 79:13 83:1 111:10 142:20 142:21 143:1 143:3 155:9 163:7 170:4 176:17 176:19  
**Removing**  
 (1) 82:22  
**Render**  
 (1) 28:25  
**Rendered**  
 (2) 156:15 162:4  
**Repeated**  
 (2) 20:12 33:16  
**Repeatedly**  
 (1) 133:7  
**Rephrase**  
 (1) 174:6  
**Replenish**  
 (3) 63:21 63:25 101:18  
**Replenishing**  
 (1) 64:21  
**Replicate**  
 (1) 75:10  
**Replicated**  
 (1) 97:5  
**Report**  
 (9) 61:12 61:16 77:12 84:15 111:9 111:19 117:11 158:25 159:2  
**Reported**  
 (1) 137:12  
**Reporter**  
 (4) 1:25 195:3 195:5 195:20  
**Reports**  
 (5) 6:24 28:8 28:11 28:19 111:3  
**Representation**  
 (1) 14:15  
**Representative**  
 (1) 59:23  
**Representatives**  
 (1) 8:11  
**Represented**  
 (1) 8:11  
**Representing**  
 (2) 26:9 82:4  
**Reproduce**  
 (3) 48:20 146:5 188:21  
**Reproduced**  
 (1) 65:21  
**Reputation**  
 (2) 188:5 191:16  
**Require**  
 (2) 91:5 166:3  
**Required**  
 (2) 90:17 107:2  
**Requiring**  
 (2) 15:23 123:12  
**Reside**  
 (2) 4:8 4:9  
**Residue**  
 (2) 82:22 86:11  
**Respect**

[14] 3:17 10:22 12:16 60:1 74:10 94:  
20 111:1 126:20 127:21 178:20 182:5  
183:13 186:7 186:11  
**Respected**  
[3] 185:15 187:1 188:6  
**Rest**  
[1] 15:20  
**Restored**  
[1] 67:18  
**Result**  
[13] 54:7 86:13 106:22 117:1 128:21  
131:1 131:16 138:19 144:10 144:14  
144:17 176:7 185:12  
**Resulted**  
[2] 183:19 187:21  
**Results**  
[10] 3:19 12:15 13:4 44:14 61:14 61:  
23 61:24 94:13 109:18 126:22  
**Resume**  
[2] 11:24 66:16  
**Retirement**  
[1] 6:19  
**Retrieve**  
[1] 171:21  
**Return**  
[1] 41:4  
**Reverend**  
[1] 119:13  
**Reverse**  
[2] 109:5  
**Review**  
[10] 24:22 27:25 86:14 87:3 112:14  
113:16 124:14 137:8 162:8 164:9  
**Reviewed**  
[3] 79:13 138:20 167:23  
**Reviewing**  
[1] 106:20  
**RH**  
[1] 60:25  
**Richard**  
[9] 131:6 121:12 122:9 137:1 137:5  
190:24 190:25 191:10 191:17  
**Right-hand**  
[1] 26:14  
**Right-handed**  
[4] 101:4 132:19 132:20 185:6  
**Rim**  
[1] 90:15  
**Ring**  
[1] 166:19  
**Riser**  
[14] 53:1 53:3 105:9 185:12 110:15  
110:18 110:19 110:21 110:24 111:2  
111:5 111:12 111:13 111:14  
**Risers**  
[1] 57:19  
**Robbed**  
[2] 162:7 162:11  
**Role**  
[4] 159:8 161:16 98:5 119:6  
**Roll**  
[1] 21:15  
**Rom**  
[1] 102:19  
**Roms**  
[1] 102:21  
**Ronald**  
[3] 1:1 2:1 2:19  
**Room**  
[77] 30:18 30:15 30:17 36:18 31:1 31:  
5 37:16 39:3 38:11 38:12 39:6 42:15  
44:18 52:1 54:24 55:10 55:23 56:18  
56:19 57:10 58:4 59:8 62:20 68:6 68:  
11 68:13 68:18 68:24 87:14 96:10 96:  
11 97:6 104:24 105:5 107:15 108:3  
108:3 109:13 109:22 112:16 112:16  
112:17 112:10 117:24 134:1 134:8 134:  
14 135:18 137:15 137:23 141:2 145:17  
155:4 156:15 157:18 157:25 158:4 158:  
18 159:15 162:15 168:14 168:20 168:  
23 170:6 170:12 172:11 172:13 173:19  
175:5 176:11 177:4 179:5 184:6 186:3  
187:18 187:20 191:11  
**Rorschach**  
[1] 47:25  
**Ross**  
[1] 137:13  
**Round**  
[2] 18:6 142:9  
**Rubber**  
[1] 185:23  
**Rubbing**  
[1] 22:18  
**Rule**  
[7] 148:11 148:14 148:15 148:20 148:  
22 149:15 150:4  
**Run**  
[1] 99:12

**Run-down**  
[2] 15:8 28:5  
**Running**  
[4] 43:4 147:16 147:17 148:8

## S

**Saliva**  
[1] 174:13  
**Sam**  
[33] 62:11 62:11 79:5 79:4 83:23 87:  
8 97:21 121:3 122:12 128:3 128:9 131:  
3 134:5 134:8 134:17 153:21 154:12  
154:19 156:14 158:5 162:3 167:1 168:  
3 168:9 168:14 169:18 169:23 170:4  
170:24 171:10 172:5 172:6 187:25  
**Sam's**  
[2] 155:8 170:11  
**Sample**  
[6] 59:23 120:14 136:24 140:25 183:4  
183:6  
**Samples**  
[1] 129:2  
**SAMUEL**  
[2] 1:6 2:6  
**Sand**  
[10] 84:1 84:9 84:12 84:15 84:16 84:  
17 84:19 84:20 84:23 85:3  
**Satisfactory**  
[1] 61:13  
**Saved**  
[1] 44:13  
**Saw**  
[26] 38:7 42:3 49:10 61:16 64:8 70:5  
77:13 80:7 80:9 81:11 81:14 82:7 82:  
7 98:16 102:10 102:24 106:17 107:14  
118:16 118:17 118:20 119:5 151:1 153:  
16 174:23 188:10  
**Scale**  
[1] 43:1  
**Scatter**  
[1] 20:16  
**Scenario**  
[1] 162:13  
**Scene**  
[31] 6:8 13:13 13:15 13:21 14:1 14:5  
15:10 15:13 20:6 24:25 25:11 26:4 26:  
5 28:14 28:23 30:17 31:7 31:15 43:14  
51:17 51:18 60:8 63:28 64:9 75:14 96:  
22 135:23 177:7 179:14 179:23 184:19  
**Scenes**  
[7] 6:12 10:8 11:20 17:8 19:8 21:11  
104:8  
**Scheck**  
[1] 98:2  
**School**  
[3] 8:1 11:5 11:5  
**Schottke**  
[3] 167:15 168:2 170:10  
**Schottke's**  
[2] 167:25 168:7  
**Science**  
[16] 4:16 4:21 4:23 6:15 12:14 18:21  
26:14 89:13 89:24 90:16 123:5 125:11  
128:18 177:16 188:7 191:3  
**Sciences**  
[3] 4:25 7:1 90:10  
**Scientific**  
[21] 24:16 86:17 96:14 97:2 97:5 110:  
20 114:7 114:9 123:20 129:19 152:15  
153:7 156:13 156:20 171:6 175:19 175:  
22 179:9 186:21 187:1 192:23  
**Scientifically**  
[6] 132:12 138:11 157:8 157:14 158:  
13 188:4  
**Scientist**  
[2] 4:12 189:20  
**Scientists**  
[2] 7:17 11:8  
**Scotland**  
[1] 5:10  
**Scraped**  
[1] 43:8  
**Scratch**  
[1] 103:5  
**Screen**  
[1] 25:8  
**Screwdriver**  
[3] 101:3 101:4 101:9  
**Script**  
[1] 96:4  
**Scully**  
[1] 119:13  
**Searched**  
[3] 56:23 57:1 57:8  
**Seat**  
[2] 58:7 79:3  
**Seated**

[1] 30:6  
**Second**  
[18] 13:22 13:24 14:1 28:10 30:4 47:  
18 52:19 53:19 54:12 57:20 58:7 59:3  
61:6 70:13 72:5 87:18 105:12 172:12  
**Seconds**  
[1] 156:5  
**Section**  
[4] 40:8 80:10 111:22 111:23  
**Sedum**  
[1] 4:4  
**See**  
[11] 12:4 12:4 13:16 13:16 13:18 13:  
19 14:23 14:8 14:16 14:17 17:23 18:  
12 18:20 18:21 19:1 19:8 19:17 19:20  
20:3 20:25 21:1 21:8 21:9 21:19 22:9  
22:16 22:13 22:14 22:15 22:19 27:23  
31:18 32:16 32:20 32:21 33:8 34:14  
34:14 35:6 35:15 36:14 37:1 37:6 37:  
10 39:5 39:11 40:12 40:13 42:4 43:1  
43:1 43:11 43:12 43:24 45:1 45:14 45:  
20 45:21 45:22 46:19 47:2 47:10 47:  
11 50:2 53:9 55:8 55:22 56:13 64:24  
68:24 70:19 70:25 71:7 71:10 73:8 76:  
12 76:16 78:8 78:20 78:24 80:3 82:15  
82:21 82:25 83:1 98:15 102:11 104:1  
104:8 116:18 118:10 123:24 124:1 130:  
18 136:20 140:5 145:3 146:5 147:6  
148:5 148:19 149:16 149:20 159:2 161:  
25 165:19 179:11 180:5 181:1 184:23  
187:18 187:21  
**Seeing**  
[5] 4:3 23:9 146:18 147:2 178:24  
**Sees**  
[2] 47:2 37:3  
**Segment**  
[1] 57:8  
**Seldom**  
[1] 15:18  
**Select**  
[1] 101:4  
**Selected**  
[1] 180:8  
**Seminar**  
[2] 5:8 53:20  
**Seminars**  
[2] 5:4 124:23  
**Sense**  
[4] 103:16 125:1 171:24  
**Sensitive**  
[1] 61:2  
**Sent**  
[2] 43:8 119:13  
**Separated**  
[2] 144:20 174:24  
**Separation**  
[2] 30:6 80:7  
**Series**  
[6] 22:16 30:13 79:19 97:4 116:2 186:  
20  
**Seriously**  
[1] 24:20  
**Serology**  
[1] 191:4  
**Served**  
[1] 7:24  
**Services**  
[1] 61:20  
**SESSION**  
[4] 3:1 89:1  
**Set**  
[3] 8:14 33:10 140:5  
**Setup**  
[1] 8:14  
**Seven**  
[7] 66:5 83:7 114:25 114:25 176:13  
178:25 179:17  
**Sever**  
[2] 163:11 163:19  
**Severe**  
[1] 160:20  
**Sexual**  
[1] 139:20  
**Shape**  
[6] 17:9 18:4 18:16 18:16 67:7 183:24  
**Share**  
[1] 3:7  
**Shed**  
[2] 17:6 33:20  
**Sheet**  
[4] 35:10 142:22 143:21 149:22  
**Sheppard**  
[117] 1:6 2:6 24:23 26:24 30:20 31:  
14 35:11 35:16 38:19 38:23 38:25 42:  
13 44:10 44:16 50:10 54:16 54:22 55:  
10 56:21 63:18 62:11 62:11 63:14 69:1  
68:7 68:18 68:23 71:16 73:16 73:21  
74:16 74:22 77:23 83:23 84:4 85:4 85:  
13 87:8 87:8 87:12 87:21 97:21 99:17

100:3 106:24 113:12 113:18 113:23  
115:12 121:1 122:12 122:18 128:3 129:  
5 129:9 130:3 130:8 130:25 131:4 131:  
9 133:12 133:23 134:8 134:17 137:22  
138:3 138:6 140:19 142:16 143:3 146:  
14 147:8 148:13 150:2 153:21 155:2  
156:14 157:21 157:23 159:10 159:14  
159:14 160:19 161:7 162:3 162:14 163:  
7 163:23 164:25 166:25 167:14 168:3  
168:9 168:14 169:23 170:4 170:24 172:  
5 172:6 172:7 174:9 174:9 177:5 178:  
14 182:20 183:19 184:1 184:11 184:12  
186:4 186:12 188:2  
**Sheppard'**  
[1] 117:18  
**Sheppard's**  
[26] 50:25 66:13 66:22 70:5 74:23 76:  
25 79:4 84:1 84:16 117:1 120:24 121:  
3 129:20 129:25 133:2 133:19 134:5  
139:7 148:16 148:25 154:13 154:19  
160:5 164:15 166:8 169:16  
**Sheriff's**  
[2] 11:2 178:11  
**Sheriffs**  
[1] 6:22  
**Shine**  
[1] 107:12  
**Shirt**  
[4] 39:9 135:3 135:13 148:17  
**Shoe**  
[2] 66:8 180:25  
**Shoes**  
[10] 39:14 68:1 68:14 84:20 84:21 85:  
24 86:1 87:16 134:11 175:10  
**Shoot**  
[1] 12:12  
**Short**  
[2] 43:22 136:1  
**Shot**  
[3] 31:16 77:4 143:2  
**Shots**  
[1] 143:19  
**Shoulder**  
[1] 117:18  
**Show**  
[31] 32:10 34:7 36:1 36:2 39:20 44:  
24 47:18 52:4 56:10 70:13 70:18 71:5  
75:21 76:1 77:4 83:2 86:3 100:2 101:  
14 134:22 139:10 155:14 169:6 177:7  
179:14 186:24 187:16 187:18 187:20  
187:24 190:19  
**Showed**  
[8] 31:21 37:25 69:3 72:9 103:11 125:  
23 161:8 179:16  
**Showing**  
[12] 9:10 11:21 29:9 38:18 42:11 44:  
24 54:4 56:7 80:1 80:8 127:25 170:15  
**Shown**  
[1] 54:12  
**Shows**  
[13] 9:18 31:14 31:14 31:17 36:18 38:  
13 45:7 53:6 54:13 56:18 143:1 143:2  
149:2  
**Side**  
[29] 33:9 33:18 36:10 44:24 45:7 45:  
10 45:13 46:1 46:10 46:10 46:18 46:  
19 46:20 47:23 56:20 57:22 67:13 77:  
5 78:7 78:9 78:17 79:1 112:1 119:1  
141:14 144:7 164:15 166:16 179:5  
**Sidebar**  
[7] 30:8 72:23 76:20 86:22 160:14  
170:18 170:21  
**Sided**  
[1] 188:1  
**Sides**  
[5] 20:19 142:13 142:15 188:15 188:16  
**Sideways**  
[1] 114:11  
**Signal**  
[2] 40:23 41:1  
**Significance**  
[6] 63:3 63:5 66:14 68:4 71:18 121:15  
**Significant**  
[13] 42:14 42:14 43:10 46:16 50:3 55:  
24 68:6 71:20 84:2 84:22 131:6 184:5  
191:23  
**Significantly**  
[1] 152:4  
**Similar**  
[4] 19:14 42:12 62:19 96:10  
**Simple**  
[3] 25:1 27:19 92:7  
**Simply**  
[5] 27:14 27:15 72:14 82:6 99:5  
**Simulate**  
[1] 101:10  
**Single**  
[3] 186:9 116:5 138:12  
**Sit**  
[3] 178:17 184:8 190:23

## Sitting

[8] 1:17 13:10 33:18 57:10 81:16 169:12 174:15 187:21

## Situation

[2] 85:13 191:2

## Situations

[2] 17:13 189:10

## Six

[3] 51:1 51:1 51:2 55:13 67:12 67:3 106:15 154:7

## Sixteenths

[2] 111:24 112:4

## Sixth

[3] 110:18 111:11 111:20

## Size

[24] 17:9 19:22 64:7 64:23 64:25 72:5 91:3 92:3 92:7 105:19 105:21 106:8 108:12 111:21 112:5 161:4 161:9 180:10 180:12 181:11 181:17 181:28 181:24 183:24

## Sized

[2] 52:11 12:17

## Sizes

[2] 21:3 91:21

## Slight

[6] 43:3 116:17 134:7 142:4 143:9 147:12

## Slightly

[11] 19:19 19:20 21:5 31:6 28:15 33:5 44:1 46:15 105:18 108:25 146:15

## Small

[49] 5:6 14:25 15:1 20:15 20:10 21:1 21:1 21:4 21:18 22:13 22:18 22:20 22:23 23:7 24:10 32:11 36:8 36:22 37:2 37:3 37:6 37:10 37:19 42:16 53:6 55:3 72:12 72:15 72:10 73:22 76:1 76:4 76:8 80:19 85:23 89:18 91:17 91:24 91:25 92:11 107:22 109:7 115:10 140:15 141:6 142:7 147:1 154:21 161:13

## Smaller

[15] 13:18 19:19 43:6 78:9 82:13 91:1 113:1 94:7 92:15 105:15 105:18 107:18 107:18 161:4 184:2

## Smear

[17] 70:7 71:1 93:6 93:7 134:7 146:24 140:11 149:12 153:16 154:14 155:14 155:16 155:22 159:7 159:9 161:23 168:15

## Smearred

[4] 71:24 79:24 147:5 154:20

## Smearing

[9] 43:23 43:24 72:8 75:10 92:20 146:5 149:5 155:22 161:5

## Smears

[22] 22:12 71:22 72:8 78:8 79:16 92:9 82:16 82:16 135:24 142:5 146:12 146:14 146:20 146:22 147:4 152:17 154:21 158:15 159:1 161:12 162:24 165:25

## Smooth

[3] 22:22 29:24 108:24

## Smudges

[1] 66:7

## Snapshots

[1] 147:25

## Sneeze

[1] 12:19

## Soak

[1] 47:6

## Soaked

[2] 45:2 141:12

## Soaking

[10] 63:15 36:16 36:18 45:2 45:13 47:7 47:9 47:10 96:24 141:10

## Soaks

[1] 96:1

## Sobel

[1] 98:13

## Societies

[1] 7:9

## Society

[2] 3:14 7:15

## Socks

[1] 68:1

## Solely

[1] 181:21

## Solid

[1] 67:4

## Solubility

[3] 123:21 124:14 124:14

## Solution

[3] 123:8 123:10 125:4

## Someone

[4] 16:18 20:12 22:4 44:17 62:18 64:22 137:22 163:3 166:21 166:22 172:9 172:11 181:8 181:9

## Sometimes

[7] 13:1 14:17 19:8 20:18 29:7 40:19 53:11

## Somewhat

[1] 144:5

## Somewhere

[1] 7:6

## Son

[1] 172:6

## Sophisticated

[2] 183:1 183:15

## Sorry

[6] 45:23 50:6 76:14 111:18 176:23 178:9

## Sort

[8] 13:12 47:11 47:11 79:10 79:16 94:1 104:10 146:1

## Sounds

[1] 110:17

## Source

[28] 32:25 43:22 44:4 44:15 48:10 63:25 64:6 64:9 65:11 65:16 66:10 73:12 76:6 77:25 78:17 78:25 101:4 101:14 113:6 117:5 121:19 123:4 122:25 180:12 180:19 181:16 183:22 184:19

## Southeast

[1] 44:22

## Spatter

[96] 8:18 9:4 9:22 10:3 10:7 10:9 10:12 12:12 16:20 21:18 21:21 23:3 31:2 32:18 33:3 33:21 33:22 38:24 39:8 40:1 40:6 40:10 40:16 40:18 41:17 41:19 42:6 45:14 46:3 46:13 46:14 46:21 68:8 68:25 69:3 82:5 87:13 87:14 87:15 88:4 90:3 90:18 92:23 93:6 93:22 96:12 96:20 115:21 123:18 132:17 132:25 133:3 133:13 135:14 135:14 135:21 137:25 138:1 140:14 140:15 140:22 141:1 141:3 141:6 141:24 142:1 142:3 142:12 142:17 146:17 147:24 148:1 151:1 153:13 154:13 159:25 160:4 160:17 161:5 161:23 161:25 168:15 172:10 176:4 177:1 177:16 183:18 184:11 185:7 185:8 186:4 186:8 186:11 187:12 190:3 190:4

## Spattered

[3] 68:13 68:19 140:16

## Spattering

[2] 92:21 134:1 140:20

## Spatters

[9] 10:17 13:20 35:21 38:13 45:1 69:4 72:14 96:4 115:8

## Special

[4] 1:5 2:5 25:11 26:14

## Specialized

[3] 5:1 7:24 15:23

## Specialty

[1] 16:2

## Specific

[7] 15:4 19:10 29:9 60:15 86:23 98:8 192:16

## Specifically

[2] 25:25 120:2

## Specifics

[1] 175:25

## Speculate

[4] 189:14 189:20 189:22 190:7

## Speculating

[5] 189:23 190:2 190:5 192:12 192:14

## Speed

[1] 104:1

## Spend

[2] 3:10 5:21

## Spent

[9] 26:18 26:21 27:1 47:13 101:24 121:19 151:6 156:13 157:17

## Spheres

[1] 91:17

## Spite

[1] 185:25

## Spokes

[1] 34:18

## Sponge

[1] 109:6

## Sponsored

[1] 9:24

## Spot

[20] 104:19 108:19 111:17 114:10 115:4 115:23 117:2 118:3 118:6 119:14 119:14 131:21 145:16 149:14 179:12 179:17 179:19 183:17 183:22 190:5

## Spots

[23] 23:12 42:7 64:7 73:3 75:11 108:12 110:7 111:17 112:15 113:21 113:7 116:20 118:5 118:12 119:19 119:25 121:20 158:16 159:15 178:24 179:24 180:11 180:11

## Spotted

[1] 109:20

## Sprayed

[2] 67:9 107:13

## Spread

## Springer

[1] 186:24

## SS

[1] 1:1 2:1

## St

[1] 4:15

## Stage

[2] 25:17 95:20

## Stain

[143] 5:15 7:23 11:19 12:7 12:24 12:25 15:8 15:11 15:22 15:25 16:8 16:20 17:4 17:16 17:23 17:23 18:5 18:6 18:8 15:19:18 18:20 18:21 18:24 21:23 22:8 24:6 24:10 24:16 24:20 24:24 25:6 25:7 25:10 25:25 27:21 32:12 32:12 32:15 34:14 35:14 35:19 36:11 36:12 36:15 36:16 36:19 39:4 42:8 42:17 42:25 42:25 43:5 43:7 43:7 43:16 44:5 45:3 45:14 47:4 47:9 47:10 48:7 48:20 49:3 49:7 49:11 49:17 50:17 50:25 56:24 59:7 59:9 59:19 62:5 66:15 67:1 67:4 70:11 73:2 75:24 76:7 77:10 77:12 77:24 87:4 87:19 92:10 92:13 107:25 109:7 111:11 111:22 111:23 112:5 115:10 116:4 116:6 116:8 116:9 116:10 116:15 117:5 117:25 122:9 124:4 125:24 126:3 126:21 127:1 127:1 127:11 132:4 132:5 141:10 142:6 142:22 143:2 143:13 143:15 143:20 143:25 144:5 154:20 155:14 172:13 177:25 178:15 179:19 179:23 179:15 181:21 181:5 182:7 182:14 182:19 183:20 183:24 184:2 184:9 184:25 186:10 187:5 191:21

## Stained

[4] 143:4 69:1 137:13 188:14

## Staining

[6] 19:22 73:11 79:23 82:15 132:4 142:1

## Stains

[24] 8:24 13:6 14:8 14:22 14:23 15:1 15:1 17:10 18:10 18:11 18:17 19:3 19:17 19:24 21:1 21:5 21:4 21:18 21:20 22:2 22:12 22:14 22:17 22:18 22:20 23:23 24:6 24:7 23:10 30:18 31:7 31:7 31:14 32:1 32:5 32:10 32:11 32:17 32:20 32:23 33:9 34:6 34:16 34:18 34:19 36:9 36:23 37:2 37:3 37:5 37:6 37:7 10:39:12 37:16 37:17 37:19 38:1 38:2 38:1 38:7 38:10 39:5 39:9 39:24 40:13 40:14 42:17 42:24 43:6 43:6 43:12 43:13 44:25 45:12 45:16 45:18 45:25 46:2 48:15 51:9 51:13 51:16 51:24 51:25 51:25 52:1 52:2 53:3 53:5 52:7 52:16 52:21 52:23 52:25 53:6 54:4 54:17 54:17 55:2 55:3 55:3 55:11 55:13 55:19 55:24 55:25 56:8 56:11 56:13 56:23 57:4 57:8 57:10 57:14 58:11 58:18 58:21 59:3 59:5 59:11 59:13 59:24 60:13 61:3 61:4 61:8 61:15 61:21 62:1 62:4 62:5 62:6 63:10 63:14 64:3 64:1 61:19 64:20 64:23 64:24 64:25 65:6 66:5 66:5 67:6 70:7 71:25 72:3 72:4 72:5 72:10 72:16 73:7 73:17 73:23 75:14 76:1 76:4 76:25 77:2 77:5 77:7 77:20 78:3 78:24 82:13 82:17 82:19 82:23 91:3 91:23 91:24 91:25 92:1 92:15 96:24 101:15 103:24 106:4 107:15 107:18 108:15 108:16 109:9 109:17 109:21 110:16 110:19 111:20 112:22 112:24 114:7 116:2 116:13 117:13 117:16 117:17 117:19 117:20 121:16 123:7 123:24 124:7 125:3 125:3 125:24 126:2 126:5 132:2 133:7 134:10 137:10 137:19 138:10 138:20 139:1 140:15 142:2 142:3 143:6 147:1 147:2 148:4 149:20 154:12 154:21 155:19 161:3 161:8 161:10 161:12 163:8 163:17 163:24 164:4 164:5 180:8 180:22 180:23 181:1 181:14 184:1 188:15

## Stair

[4] 52:23 105:8 105:10 111:24

## Staircase

[7] 105:2 105:21 109:12 109:22 111:5 112:17 113:19

## Stairs

[25] 63:2 53:4 53:13 54:2 54:13 54:14 54:19 54:24 54:25 55:2 55:5 55:8 57:7 57:9 57:16 57:19 58:3 59:6 61:5 63:14 103:14 109:9 109:17 110:17 111:10

## Stairways

[2] 51:22 53:1

## Stamp

[1] 185:23

## Stand

[5] 3:15 15:18 48:2 128:19 186:2

## Standard

[4] 8:14 60:13 181:13 194:2

## Standardized

[1] 8:7

## Standards

[1] 8:13

## Standing

[2] 14:7 30:24 38:16 38:20 39:11 116:9 120:18 138:8 139:22

## Standpoint

## Standards

[1] 116:6

## Start

[7] 19:1 19:22 19:23 29:17 31:8 33:11 64:1

## Started

[8] 9:4 30:22 33:16 37:23 66:25 66:25 90:14 177:15

## Starting



(1) 13:1  
**Subjects**  
 (1) 186:22  
**Submit**  
 (1) 6:23  
**Submitted**  
 (6) 5:23 41:11 69:21 88:14 136:10 193:24  
**Subpart**  
 (1) 16:2  
**Subsequent**  
 (1) 44:12  
**Subsequently**  
 (7) 26:10 35:7 44:6 47:1 48:15 79:3 171:21  
**Subspecialty**  
 (3) 90:10 90:12 92:16  
**Sucks**  
 (1) 109:6  
**Sudden**  
 (1) 16:18  
**Suffering**  
 (1) 103:4  
**Sufficient**  
 (9) 41:2 110:14 143:13 144:25 145:9 155:4 164:1 165:14 165:22  
**Sufficiently**  
 (1) 143:22  
**Suggest**  
 (2) 171:5 172:4  
**Suggested**  
 (1) 189:7  
**Suggestion**  
 (1) 189:7  
**Suitable**  
 (1) 136:1  
**Supervising**  
 (1) 4:5  
**Supervisor**  
 (1) 6:4  
**Supervisory**  
 (1) 6:12  
**Supplemental**  
 (1) 15:5  
**Supply**  
 (1) 64:21  
**Surely**  
 (2) 16:20 61:24 78:16 96:18 102:12 22:3 143:10 177:21 185:22  
**Surface**  
 (39) 18:1 18:10 18:18 20:10 20:10 20:13 20:14 20:24 22:18 22:22 32:24 35:20 46:23 47:6 53:1 53:2 53:14 54:5 54:6 68:9 76:7 79:10 91:13 103:13 103:19 103:20 103:25 104:6 104:20 105:13 105:2 109:2 133:6 141:11 145:16 161:10 180:21 180:25 181:15  
**Surfaces**  
 (3) 57:15 108:24 109:9  
**Surgery**  
 (1) 113:24  
**Surgical**  
 (2) 141:20 175:7  
**Surprise**  
 (1) 168:2  
**Survey**  
 (1) 42:32  
**Suspect**  
 (2) 14:3 85:11  
**Suspected**  
 (1) 15:6  
**Sustained**  
 (12) 62:23 80:18 128:10 129:23 151:21 152:33 160:9 168:6 170:22 172:2 173:25 174:5  
**Sustaining**  
 (2) 160:6 160:20  
**Suster**  
 (3) 1:1 2:1 2:19  
**Swab**  
 (1) 175:13  
**Swabbed**  
 (1) 74:8  
**Swing**  
 (6) 180:16 131:11 131:17 131:19 132:1 132:11  
**Swinging**  
 (3) 64:25 104:5 104:10  
**Swings**  
 (1) 131:13  
**Sworn**  
 (1) 3:24  
**Symmetrical**  
 (3) 4:3 144:6 144:15  
**Symmetry**

(2) 47:23 48:6  
**Synopsis**  
 (1) 23:19  
**Synthetics**  
 (1) 66:3  
**System**  
 (5) 25:20 60:25 60:25 61:9 186:20  
**Systematic**  
 (1) 25:10  
**Systems**  
 (1) 6:3  


---

**T**  


---

**T-shirt**  
 (6) 135:2 135:3 135:7 135:9 135:12 135:13  
**Table**  
 (2) 187:21 187:22  
**Tahir**  
 (4) 12:20 126:21 126:24 136:25  
**Tail**  
 (1) 18:13  
**Tan**  
 (1) 67:8  
**Tantamount**  
 (1) 186:23  
**Target**  
 (7) 20:22 21:8 22:21 90:25 104:17 104:18 133:19  
**Targets**  
 (1) 21:25  
**Taught**  
 (1) 12:6  
**Teach**  
 (11) 4:15 6:14 8:9 9:23 13:9 23:5 43:11 93:9 93:21 115:19 115:20  
**Teaching**  
 (2) 187:7 187:9  
**Tear**  
 (1) 53:9  
**Technicians**  
 (2) 92:19 112:8  
**Technique**  
 (7) 5:12 55:15 55:16 120:9 124:5 125:23 182:23  
**Techniques**  
 (4) 61:1 120:12 120:15 177:24  
**Technology**  
 (1) 61:17  
**Teeth**  
 (3) 130:18 174:8 185:11  
**Telephone**  
 (1) 189:1  
**Televised**  
 (1) 3:17  
**Television**  
 (1) 194:1  
**Temperature**  
 (1) 145:17  
**Ten**  
 (3) 8:12 9:2 55:25  
**Tenacious**  
 (1) 68:15  
**Tend**  
 (3) 48:9 81:16 91:19  
**Tendency**  
 (1) 13:24  
**Tends**  
 (1) 186:9  
**Tennis**  
 (1) 190:16  
**Tension**  
 (1) 91:13  
**Term**  
 (6) 2:16 19:4 91:19 103:3 110:21 110:24  
**Terminology**  
 (1) 44:6  
**Terms**  
 (7) 10:3 24:1 59:2 69:23 141:23 178:3 183:8  
**Terrific**  
 (1) 52:22  
**Terry**  
 (7) 1:16 12:22 97:16 97:17 98:11 117:11 170:15  
**Test**  
 (17) 8:14 52:7 52:8 52:9 54:8 74:9 74:10 110:5 110:20 123:18 123:19 125:10 125:22 128:18 164:22 165:14 182:18  
**Tested**  
 (10) 58:19 58:22 58:23 58:24 59:11 123:7 125:13 126:5 149:18 179:24  
**Testified**  
 (15) 3:25 7:5 10:14 10:18 26:10 35:

11 63:1 101:7 118:23 122:8 123:4 129:7 133:14 168:3 171:7  
**Testify**  
 (5) 26:12 29:18 116:24 122:20 128:8  
**Testifying**  
 (4) 17:2 29:25 69:12 118:24  
**Testimony**  
 (24) 6:25 25:3 50:9 61:11 71:15 94:15 118:3 111:4 119:18 124:10 129:15 135:5 136:14 136:15 137:7 153:21 154:6 160:16 163:12 165:9 167:3 167:25 168:7 190:20  
**Testing**  
 (13) 61:18 82:22 101:5 109:16 110:10 122:1 123:6 125:14 156:7 173:2 173:3 183:8 191:5  
**Testings**  
 (1) 133:11  
**Tests**  
 (16) 58:15 63:17 67:10 67:14 74:3 75:9 77:13 107:3 109:15 110:5 120:4 129:19 129:25 164:18 176:11 183:9  
**Theft**  
 (1) 157:20  
**Themselves**  
 (1) 139:24  
**Themselves**  
 (4) 14:2 135:15 113:10 146:22  
**Therefore**  
 (3) 42:23 125:20 173:5  
**Therein**  
 (1) 195:14  
**Thereupon**  
 (9) 39:7 41:12 72:22 76:19 88:17 136:16 160:13 170:20 194:4  
**Thicker**  
 (1) 194:21  
**Thief**  
 (2) 153:17 158:4  
**Thin**  
 (1) 156:7  
**Third**  
 (7) 14:9 110:14 110:18 111:11 111:23 111:23 114:6  
**Thorough**  
 (5) 66:23 70:3 84:14 158:23 179:6  
**Thoroughly**  
 (1) 165:6  
**Three**  
 (24) 8:1 13:17 22:17 23:7 38:15 38:15 70:24 72:4 73:23 75:2 75:4 86:6 111:24 112:4 116:13 123:16 142:9 147:2 158:9 161:3 161:12 166:12 180:21 183:13  
**Three-sixteenths**  
 (2) 111:24 112:4  
**Threw**  
 (1) 166:22  
**Throughout**  
 (9) 6:10 20:16 51:10 58:11 64:8 108:3 134:1 135:1 169:3  
**Throw**  
 (5) 45:20 115:13 115:16 171:13 171:16  
**Thrown**  
 (2) 166:17 167:8  
**Tide**  
 (1) 85:20  
**Tie**  
 (2) 168:15 168:23  
**Timing**  
 (2) 157:3 171:18  
**Tipped**  
 (1) 86:22  
**To-wit**  
 (1) 2:16  
**Toby**  
 (1) 2:16  
**Today**  
 (19) 42:20 43:11 52:8 60:3 60:21 62:14 67:17 94:15 127:8 161:3 163:12 178:17 180:4 183:1 183:5 183:21 186:2 190:14 192:13  
**Together**  
 (5) 8:12 26:4 80:6 81:14 148:2  
**Tom**  
 (1) 127:13  
**Took**  
 (18) 6:13 72:9 74:18 75:22 110:19 124:15 148:1 152:17 155:8 157:4 157:9 158:1 161:22 162:22 170:6 170:12 175:12 195:5  
**Tool**  
 (3) 48:19 164:14 164:14  
**Tooth**  
 (4) 129:23 130:4 130:10 130:11  
**Top**  
 (9) 18:11 36:14 45:17 53:14 71:2 71:22 137:3 145:2 174:24

**Tossed**  
 (1) 44:2  
**Total**  
 (3) 7:6 15:12 15:17  
**Totally**  
 (3) 48:7 128:11 184:16  
**Touch**  
 (1) 189:12  
**Touched**  
 (2) 158:16 189:8  
**Touching**  
 (3) 43:23 45:21 143:23  
**Touchings**  
 (1) 166:4  
**Toward**  
 (5) 31:16 31:19 31:20 54:24 56:6  
**Towards**  
 (11) 18:25 32:1 36:6 52:19 55:6 56:20 59:10 69:8 71:10 147:12 149:4  
**Tower**  
 (1) 2:20  
**Trace**  
 (5) 5:25 6:4 15:14 83:11 136:23  
**Trail**  
 (30) 55:25 58:5 59:20 59:22 59:24 60:7 62:24 62:25 63:2 63:6 63:7 64:4 65:10 65:11 65:24 97:9 103:2 103:3 103:17 104:1 104:25 105:20 179:20 179:21 179:22 180:2 180:9 181:25 182:1 182:4  
**Trails**  
 (2) 62:19 65:18  
**Trained**  
 (3) 13:3 73:2 161:21  
**Training**  
 (10) 10:21 11:15 16:7 16:12 16:14 16:19 16:25 42:20 77:19 92:19  
**Transcribed**  
 (1) 195:8  
**Transcript**  
 (7) 1:13 2:12 124:10 137:8 195:10 195:10 195:13  
**Transcripts**  
 (3) 28:9 102:2 167:24  
**Transfer**  
 (12) 142:21 143:15 149:11 155:19 156:1 159:21 163:8 163:17 163:24 164:4 164:5 165:3  
**Transferred**  
 (1) 104:18  
**Transpired**  
 (1) 153:25  
**Transported**  
 (1) 176:17  
**Trauma**  
 (1) 140:18  
**Travel**  
 (1) 31:22  
**Traveled**  
 (7) 5:10 5:13 5:19 8:5 9:1 11:6 169:3  
**Treads**  
 (1) 105:8  
**Trial**  
 (16) 24:9 25:13 28:10 28:11 37:18 43:9 63:8 65:23 81:17 84:19 117:5 117:15 128:5 179:6 184:17 195:12  
**Trials**  
 (1) 28:11  
**Tried**  
 (1) 132:7  
**Tries**  
 (1) 67:14  
**Trips**  
 (1) 157:10  
**Trouble**  
 (2) 152:18 171:12  
**Trousers**  
 (8) 50:25 66:22 67:22 134:5 134:14 134:18 135:17 163:6  
**True**  
 (8) 84:5 89:13 158:12 179:11 179:21 181:5 182:24 195:12  
**Trusted**  
 (1) 13:3  
**Try**  
 (7) 17:11 39:20 75:9 85:9 85:12 95:25 96:9  
**Turn**  
 (5) 52:12 52:13 55:20 55:23 114:11  
**Turned**  
 (3) 55:5 83:19 158:14  
**Turning**  
 (1) 56:19  
**Turns**  
 (2) 93:16 172:22  
**Twice**

[3] 12:19 18:22 18:25  
**Two**  
[65] 5:14 8:1 12:24 17:24 18:12 22:  
23 23:7 27:6 34:5 37:23 38:7 38:15  
44:23 45:16 45:18 45:24 47:3 48:5 55:  
7 59:1 59:5 61:5 61:5 66:1 67:19 72:  
4 73:23 75:4 87:5 87:12 88:3 106:4  
110:16 110:19 112:11 119:11 119:19  
120:13 120:15 120:19 121:16 121:20  
23:6 123:2 123:14 124:3 124:15 124:  
5 125:7 125:14 125:19 132:2 133:5  
142:9 143:19 147:2 156:9 157:10 161:  
1 161:11 172:8 172:9 172:17 180:21  
186:10

## Two-dimensional

[1] 14:15

## Two-week

[1] 5:14

## Type

[94] 48:1 66:8 69:4 83:21 92:19 100:  
14 109:16 116:12 120:21 121:12 122:3  
122:4 123:7 123:14 124:16 124:24 126:  
9 126:15 126:19 127:1 127:3 127:5  
131:11 131:17 137:1 137:5 137:5 137:  
11 138:18 139:2 140:14 140:24 141:1  
145:2 146:13 152:24 158:15 159:18  
162:19 182:9 182:20 190:17 190:24  
190:25

## Typed

[5] 120:18 138:23 138:24 172:20 190:  
16

## Types

[14] 8:6 11:13 14:23 35:3 77:20 93:3  
96:18 96:20 104:3 113:13 124:15 125:  
15 125:19 181:14

## Typewritten

[1] 195:9

## Typically

[2] 1:18 59:18

## Typing

[15] 122:2 123:1 123:22 123:23 124:  
25 126:6 126:8 173:3 173:4 182:6 182:  
7 182:14 182:25 190:16 191:7

## U

## Ultimately

[1] 123:7

## Unable

[1] 135:8

## Unaided

[1] 107:24

## Uncertain

[1] 96:15

## Inconscious

[2] 156:15 162:4

## Uncover

[1] 175:20

## Uncovered

[1] 129:21

## Under

[8] 16:13 23:24 77:6 89:4 90:19 120:  
5 129:24 174:2

## Undergraduate

[2] 89:25 119:8

## Underneath

[10] 13:19 34:14 34:23 57:3 59:6 70:  
10 70:24 142:19 142:21 143:12

## Underside

[1] 37:3

## Undisturbed

[1] 13:16

## Unfortunately

[1] 23:12

## Unique

[2] 8:19 128:14

## United

[3] 11:17 92:23 177:20

## University

[8] 4:15 4:22 5:18 8:20 11:5 23:23  
90:1 94:18

## Unknown

[2] 144:18 173:20

## Unless

[2] 108:7 182:3

## Unlikely

[1] 86:25

## Unusual

[3] 59:25 77:16 179:12

## Unwilling

[1] 192:7

## Up

[88] 6:13 11:11 13:7 13:20 14:25 19:  
11 20:20 21:2 21:5 21:13 22:19 32:18  
2:24 33:10 33:11 33:12 33:13 34:12  
34:13 34:15 35:6 36:12 37:23 39:19  
39:25 41:5 42:23 43:6 45:11 46:1 51:  
2 52:18 53:15 53:3 53:12 53:19 67:13  
70:5 70:8 70:22 71:3 71:22 71:22 72:  
25 83:17 84:6 84:7 91:23 91:24 92:1  
92:3 92:10 92:15 95:14 99:7 100:13  
104:6 104:15 104:19 104:20 104:22

112:17 119:4 119:12 151:9 155:18 158:  
19 164:24 166:4 169:18 169:19 141:5  
143:6 143:27 144:1 145:23 146:17 150:  
17 153:19 155:11 169:2 171:13 173:10  
180:10 180:24 181:8 184:22 189:19

## Uphill

[1] 147:17

## Upper

[1] 174:21

## Ups

[1] 54:11

## Upstairs

[4] 54:15 84:7 102:13 171:14

## Useful

[2] 29:14 62:16

## V

## Valid

[2] 79:21 180:6

## Valuable

[1] 62:2

## Valuation

[1] 83:25

## Value

[3] 128:16 175:19 176:7

## Variation

[1] 180:23

## Varied

[2] 161:9 181:13

## Variety

[2] 21:3 186:22

## Various

[4] 105:7 112:7 156:23 167:6

## Vary

[3] 180:15 180:16 180:18

## Vast

[1] 93:18

## Vein

[2] 24:19 122:22

## Velocity

[2] 104:13 180:20

## Venture

[1] 175:20

## Verbally

[1] 188:4

## Version

[3] 153:25 168:10 170:11

## Vertical

[1] 54:5

## Victim

[2] 62:18 172:6

## Video

[1] 148:3

## View

[6] 14:16 45:4 53:24 54:1 104:13 170:  
14

## Viewed

[1] 45:11

## Viewers

[1] 197:1

## Views

[1] 180:3

## Village

[1] 178:12

## Virtually

[2] 96:22 182:2

## Visible

[1] 107:24

## Visual

[1] 17:21

## Visualize

[1] 103:24

## Visually

[1] 103:17

## Vitae

[1] 11:25

## Void

[3] 21:9 21:14 27:21

## Volume

[2] 145:15 146:2

## Volumes

[1] 145:23

## W

## Wait

[1] 23:13

## Walk

[2] 181:10 188:6

## Walked

[2] 10:14 66:6

## Walking

[3] 63:20 64:2 65:2

## Wall

[11] 31:16 37:20 37:22 37:23 37:24  
39:19 114:10 125:19 133:12 133:19  
137:19 137:14 149:4

## Wallet

[8] 16:15 162:20 162:21 162:24 163:  
5 164:7 163:23 189:1

## Wants

[1] 189:21

## Wardrobe

[9] 12:14 32:14 42:8 42:9 107:1 176:22  
178:23 190:16 190:24

## Warehouse

[1] 95:23

## Warn

[1] 143:6

## Wash

[7] 68:16 70:11 84:6 85:21 85:24 86:  
8 86:9

## Washed

[3] 85:5 85:13 86:6

## Washing

[5] 19:9 84:25 85:19 85:20 86:4

## Watch

[85] 62:5 69:6 69:16 69:24 70:5 70:7  
71:13 71:20 72:14 72:15 73:4 73:13  
73:22 74:3 74:5 74:17 74:19 75:11 75:  
12 75:22 75:24 79:4 79:7 79:8 79:10  
80:4 80:11 81:11 81:21 82:1 82:3 82:  
4 82:12 83:3 83:4 145:18 147:1 152:5  
152:7 152:10 152:13 152:14 152:18  
153:1 153:9 153:10 153:14 154:5 154:  
13 154:19 154:23 155:3 155:8 155:14  
155:15 156:22 156:13 157:6 159:19  
160:4 160:18 161:6 161:14 161:17 162:  
3 163:11 163:22 164:5 164:19 164:13  
164:24 165:15 166:5 166:11 168:3 168:  
10 168:13 169:16 169:24 170:4 170:5  
170:24 171:9 187:17 191:25

## Watches

[1] 69:19 159:12 159:13

## Water

[12] 19:10 19:13 34:17 63:20 70:9 70:  
10 70:19 70:24 71:17 123:9 123:10  
123:11

## Ways

[2] 151:3 191:25

## Weapon

[12] 20:4 63:9 63:13 63:16 63:19 64:  
1 65:24 180:6 101:15 115:13 115:16  
115:17

## Wearing

[7] 68:1 134:17 134:22 135:2 135:3  
135:7 186:12

## Wecht

[2] 98:15 98:16

## WEDNESDAY

[1] 3:1 89:1

## Week

[4] 5:14 93:15 93:19 158:22

## West

[1] 96:7

## Wet

[7] 49:22 50:23 51:6 69:7 163:4 164:  
4 169:25

## Whatsoever

[1] 133:14

## Wheel

[1] 14:18

## White

[1] 70:21

## Whole

[15] 6:21 13:21 22:2 22:23 23:5 23:  
16 34:11 38:12 72:13 84:7 101:19 116:  
2 161:10 161:14 161:17

## Wide

[4] 18:19 18:22 18:25 38:15

## Width

[2] 18:16 138:8

## William

[2] 1:19 11:4

## Willing

[2] 128:7 183:21

## Windshield

[1] 19:8

## Wiped

[2] 79:25 80:13

## Wish

[1] 29:6

## Wit

[1] 3:16

## Withdraw

[1] 193:6

## Withdrawing

[1] 130:4

## Witness

[8] 3:12 3:19 3:23 5:17 53:20 53:22  
54:1 136:13

## Wolson

[1] 9:16

## Woman

[1] 135:19

## Wonderful

[1] 85:19

## Wood

[3] 5:8 56:12 103:13

## Woodwork

[3] 32:21 32:22 56:24

## Word

[2] 95:20 185:3

## Words

[8] 12:25 14:25 15:13 116:1 142:23  
146:22 147:25 150:10

## Workbook

[7] 9:8 9:14 9:21 12:4 93:10 93:11  
145:21