

Q If copper sulfate is spattered upon or stained on a piece of fabric such as the trousers here, is it apt to remain despite laundry?

THE COURT: Counselor, I am having a difficult time hearing you.

MR. BAILEY: I am sorry, your Honor.

THE COURT: And the Jury is having a difficult time hearing both of you.

MR. BAILEY: Okay.

Q Is copper sulfate such a chemical as is likely to remain in a fabric despite one or more launderings, or is it easily washed out?

A This again, as with the blood, depends upon the fabric.

Q Would copper sulfate give a reaction to a luminol spray?

A Yes.

MR. BAILEY: That is all. Thank you very much.

THE COURT: Counselor Spellacy?

REDIRECT EXAMINATION

By Mr. Spellacy:

Q Miss Cowan, this morning on cross examination you mentioned in answer to a question by Mr. Bailey that there were

many unknown factors present in dry blood as compared to cold blood; could you explain that for us, please?

A The factors, some of the principal factors acting upon the dried blood stain is, first of all, the surface upon which it is deposited, whether it is absorbent, or non-absorbent, whether it is clean or soiled, whether it has grease present or detergents.

Then we have the size of the stain, the time that it takes it to dry, the presence of bacteria, and the temperature conditions of drying.

I think those are the principal ones.

Q Did you make this statement in connection with a stain of blood, typing stains of blood?

A I believe I did.

Q Then you had to take all these factors into consideration when typing a stain of blood, is that correct?

A Yes, that is, they will influence the outcome of the results.

Q Now, you talked about agglutination this morning; what was the agglutination insofar as Marilyn Sheppard's blood was concerned?

A Agglutination.

Q Agglutination, I am sorry.

A It was of low titer. When the serum was first titered,

it was a one plus reaction, one to 32. After standing overnight in room temperature, the titer had fallen to one plus to 1 to 8. I think that is the realm.

Q Is this when you were typing it for type O blood?

A Yes. This was when checking for the anti A and anti B agglutinin.

Q Does the speed at which agglutination takes place have anything to do with typing of blood?

A No.

Q Now, you indicated before that you had examined the watches for ridges, I believe is the way you used it, is that correct?

A Pattern imprint.

Q Pattern imprint. Was it your purpose to remove those pattern imprints?

A No.

Q If you had found pattern imprints, what would you have done?

A I would have called for a fingerprint expert if it appeared to me that they were fingerprints.

Q A fingerprint expert is one who makes a comparison, isn't that correct?

A That is correct.

Q And is not one for merely determining whether or not

there are ridges or patterns present?

A That is right.

Q Had you in your experience found ridges and patterns present on various occasions?

A Yes.

Q How many times have you done this?

A I wouldn't want to estimate. Let's say on a few occasions that it has been important to have called in, I referred it to a fingerprint expert.

Q And have you made examinations on other occasions?

A Yes.

Q Now, you indicated that there was a break in this watch referred to as State's Exhibit 24 in the band, is that correct?

A Yes.

Q What side of the watch is that on, with reference to the figure 12, and with reference -- with reference to 12 o'clock and with reference to six o'clock?

MR. BAILEY: I object. The exhibit speaks for itself.

THE COURT: Overruled. She may answer.

A It is corresponding to the position of the usual position of the numeral 12, which normally worn would occur,



would coincide with the lateral side.

Q Or if normally worn, it would be on the outside portion of the wrist, is that correct?

A Yes.

Q Now, with regard to the spatter stains, where did you find the most spatter stains, at the numeral 12, or the numeral 6, which would be then on the inside of the wrist?

A On the wristband corresponding -- and rim of the watch, corresponding with the numeral 6.

Q Now, you indicated you were at the home on July 9th?

A July 11th.

Q July 11th; it was August 9th?

A Yes.

Q July 11, 1954?

A Yes.

Q I believe you indicated that Patrolman Drenkhan and Sergeant Hubach were there?

A Yes.

Q Did either one of those gentlemen call your attention to anything on a bannister?

A Not that I recollect, no.

Q Did you make an examination of a bannister?

A No.

MR. SPELLACY:

I have no further

questions.

THE COURT:

Counsellor Bailey?

RECROSS EXAMINATION

By Mr. Bailey:

Q Miss Cowan, you knew that Marilyn Sheppard was pregnant at the time of her death?

A Only from the autopsy report.

Q Well, you accepted that as fact?

A Yes.

Q She had type O blood, that is what you determined?

A Yes.

Q This is from whole blood, not dried blood?

A Yes.

Q Did you ever test any of the dried blood that you knew to be here?

A Yes.

Q Did you group it?

A Yes.

Q And that was from the bed sheet?

A Yes.

Q Did I understand you to say that her agglutination was low?

A No, weak.

Q Weak?

A Yes.

Q You used the term titer?

A Yes, the titer. You cannot draw any conclusions when you are dealing with this type of blood, because you do not, there is no accurate way of determining how much of the antigenic substance you have present in the stain except by the test with the antibody.

With the watches there was a weak reaction which was low, and which I choose to call inconclusive because it was so weak.

Using the material from the sheet with more antigen present, it was a normal type of reaction, and I don't recall the time on that.

Q You found O with an M factor?

A On the sheet?

Q No.

A On the watch?

Q No, from Marilyn's blood, the whole blood.

A Yes.

Q The Rh?

A I did not do that myself --

Q Was it done?

A Yes, it was done by Dr. Marsters, and it is in his

report.

Q Was that negative?

A I believe so.

Q Would pregnancy have anything to do with the rate of agglutination?

A This is highly conjectural, and you cannot individualize it to a specific individual.

Q Then you say so far as you are concerned, pregnancy is irrelevant to agglutination?

A To my examinations.

Q Have you done experiments on distinguishing blood within a given group based upon the rate of agglutination?

A I have had different results --

Q Have you done experiments?

A Experiments, I do not time to do experiments. I can talk only from experience and routine.

Q The question was, did you do experiments, and I take it your answer is no?

A No.

Q Do you tell the Jury that there is no basis for distinguishing with a given group the blood of one individual from that of another, based on the rate of agglutination?

A I do.



Q Is that the universal opinion of the field of blood experts, or is there some disagreement on that?

MR. SPELLACY: Objection.

Q If you know.

MR. SPELLACY: Withdraw the objection.

A Experienced workers all agree.

Q Experienced workers all agree?

A Yes.

Q You know of no experts who don't share your opinion?

A I said experienced workers, dealing with blood stain.

Q So you know of no experts with experience who take a contrary view?

MR. SPELLACY: Objection.

THE COURT: Overruled.

A Not in my own field of knowledge. I know how much experience I have had.

Q Do you know or did you ever hear of Dr. Paul Kirk whose articles on blood you indicated you have read?

A Yes.

Q Do you consider him to be an expert in the field of biochemistry?

A In biochemistry, yes.

Q In blood grouping?

A I do not know how much experience he has had in blood

grouping.

Q So you are unable to give us your estimate of his ability in that regard?

A That is correct.

Q So that if he is an experienced worker, this is beyond your personal knowledge?

A That is right.

MR. BAILEY: All right, thank you.

MR. SPELLACY: I have no further questions. Thank you, Miss Cowan.

THE COURT: You are excused, Miss Cowan.

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