

1 A. If it is, you would have to add four inches approxi-
2 mately.

3 MR. HAILE: Thank you.

4 Your Honor, we would like to submit that as
5 an exhibit.

6 THE COURT: Submit what, the photograph?

7 MR. HAILE: Yes, sir, the photograph, that
8 photograph. If you just look at it, anybody can
9 see where it is cut out.

10 Q. That would kind of rearrange your trigonometry a
11 little, wouldn't it, Mr. MacDonell?

12 A. No, it wouldn't rearrange my trigonometry. It would
13 shift the wall four inches --

14 Q. (Interposing) Three times what you have up there.

15 THE COURT: Let him finish.

16 THE WITNESS: I would have to calculate it --
17 approximately four inches in this direction, to the
18 left, and I am not sure this is terribly accurate,
19 but that would add perhaps six inches, and make it
20 possibly thirty-eight inches here (indicating).
21 So we had, plus or minus four, it would be forty-
22 two inches -- could be.

23 Q. Well, let's look at the windowsill again. Maybe we
24 can add another couple of inches.

25 Isn't it true that the windowsill really sticks out
here, and when you measured it, you measured it from there

1 to there?

2 A. I measured from here.

3 Q. Beg your pardon?

4 A. I measured from here. And if this is four inches,
5 it would change it certainly, the proportion.

6 Q. Well, I don't want to proportion that particularly.
7 I am sure you will get a chance to do that this afternoon.

8 A. It would be much simpler to try to fit it in, I
9 think.

10 THE COURT: And you wanted to make that an
11 exhibit?

12 MR. HAILE: Yes, sir. I think there is
13 already one.

14 THE COURT: Well, perhaps we should mark this
15 one, because this is the one the witness used.

16 That will be Trial Exhibit 115.

17 Also, in order that the record may be correct,
18 I think we should direct the clerk to mark the
19 drawings. I am willing to mark them collectively.
20 Just put the No. 116 on the first drawing, and then
21 remember after they are torn off of the easel that
22 that is a collective exhibit.

23 (The documents above referred to were marked
24 Exhibits 115 and 116, respectively, to the testimony
25 of the witness, and same will be found among the

1 exhibits hereto.)

2 THE COURT: All right. Mr. Haile, do you have
3 further questions of the witness?

4 MR. HAILE: Yes, sir.

5 Q. Now, Mr. MacDonell, how many centimeters did you say
6 it was from the edge of that windowsill and the wall?

7 A. I think I said it was five to six millimeters, which
8 would be .5 to .6 centimeters.

9 Q. But now on this it seems like to me it shows eight
10 millimeters (indicating). That's not the picture you used
11 though, is it?

12 A. No.

13 Q. Is that what it shows?

14 A. I didn't measure it on this one.

15 Q. Well, measure it there. You are the expert.

16 A. I would say it is about seven millimeters.

17 Q. Seven and a half?

18 A. I will say eight if you like; make it nine if you
19 like.

20 Q. Why don't you put that down there between the one and
21 the two where the marks are a little better instead of
22 between the zero and the one?

23 A. I am using between the thirteen and fourteen if that
24 is all right.

25 Q. That's all right. So it is eight, right?

- 1 A. No. I say it's seven. But that depends --
- 2 Q. (Interposing) So there is between a twenty-five and
3 a thirty percent difference in the six that you testified
4 to and the seven or eight, depending on whether you measured
5 or I measured, depending on which picture you used?
- 6 A. No; because then the proportionality of the overall
7 sill will increase also.
- 8 Q. They are all eight by ten pictures?
- 9 A. Right. But they are not the same size at the window.
- 10 Q. And they are not the same angle either?
- 11 A. That's correct. That's why I allowed tolerance.
- 12 Q. Tolerance of what?
- 13 A. I think I put plus or minus four inches on them.
- 14 Q. You put plus or minus ten percent on that particular
15 measurement, didn't you?
- 16 A. Well, I increased it a little better than ten percent.
17 But admittedly it would be four inches more here.
- 18 Q. It would be four inches more. But if instead of that
19 one point eight it were thirty percent greater, that would
20 be two point four inches, right? And then if you added four
21 inches and expanded that to correct for the same error factor,
22 instead of being six inches here it would be seven or eight,
23 right?
- 24 A. If you make it eight inches, I guarantee it will not
25 fit forty-two inches in diameter.

1 Q. Well, let's see. If you increase this to eight
2 inches here, and let's assume that your measurement here was
3 correct, that's sixteen. That makes the short leg of your
4 right triangle about, what -- I would say about twenty-four
5 or twenty-five inches, right?

6 A. If you want to change it eight inches, it would be
7 twenty-four and a quarter.

8 Q. All right. What would that do to the hypotenuse of
9 the right triangle?

10 A. Well, if you move the base over you increase the
11 hypotenuse, of course.

12 Q. You would increase the hypotenuse by much more,
13 wouldn't you?

14 A. Well, it would be the proportionality between the
15 height and the way the triangle is set, and the base.

16 Q. Well, let's assume that you measured it by the angle
17 of the cut right here. Did you bring your slide-rule?

18 A. Yes.

19 Q. How did you figure out that -- just tell me how --
20 you said you didn't bring your tables. Did you bring your
21 slide-rule?

22 A. Yes.

23 Q. You figured it up on the slide-rule?

24 A. I didn't use trigometric functions. I used propor-
25 tionalities.

- 1 Q. You used proportionalities?
- 2 A. That's correct.
- 3 Q. What do you mean, you drew a little diagram?
- 4 A. May I demonstrate?
- 5 Q. Certainly.
- 6 A. You have an equilateral triangle of sixty degrees.
- 7 Q. It's not an equilateral? It's a right triangle,
- 8 isn't it?
- 9 A. Pardon me. If you have a unilateral or equilateral
- 10 of sixty degrees, all the lines are the same. If you have
- 11 a right triangle, then this is a forty-five degree angle.
- 12 Then these dimensions are the same. The hypotenuse, of course,
- 13 is longer. But knowing the base and altitude of any triangle,
- 14 you determine the angles from those without trigonometry.
- 15 Q. I am not talking about the angles. I am talking about
- 16 the length of the sides.
- 17 A. That's what I measured with a ruler.
- 18 Q. Show me how you did it. Did you draw a picture of it
- 19 to scale?
- 20 A. Yes.
- 21 Q. You didn't use a slide-rule?
- 22 A. No.
- 23 Q. And you didn't use tables?
- 24 A. Only to determine the proportionality.
- 25 Q. I am not interested in the proportionality. We know

1 it is a right triangle. I mean those walls, those lines
2 having ninety-degree angle in one side?

3 A. Well, I wouldn't make that assumption.

4 Q. Well, where are your notes where you did what you did?

5 A. Right here.

6 Q. May I see them?

7 A. Certainly.

8 Q. Where are your notes where you measured this angle
9 in Exhibit 1? What was this angle with the rest of the
10 windowsill?

11 A. I didn't measure the angle.

12 Q. So the angle really might have been like -- let me
13 do it in another color (drawing). I don't want my work
14 confused with yours.

15 A. Nor do I.

16 Q. Might have been like that (indicating)?

17 A. No, it would not. You have shown the discrepancy in
18 what I drew, and as I previously stated, I measured the angle
19 by measuring the height of the intersection three inches on
20 the altitude and five and a quarter inches on the base.
21 That's just a simple way of determining angle without
22 geometric function.

23 Q. Wait a second. Okay. Show us how you do it.

24 A. I thought I just did. If you measure "A" (indicating),
25 and you measure "B," and you are making the hypotenuse

1 parallel --

2 Q. Is there a hypotenuse in an equilateral triangle?

3 A. This is an equilateral triangle. This is a right
4 triangle (indicating).

5 Q. Only right triangles have hypotenuses, is that correct?

6 A. Well, that here (indicating).

7 Q. Okay.

8 A. If you know the distance "A" and know the distance
9 "B" you can determine the angle theta if this hypotenuse is
10 parallel.

11 Q. Okay. Show us how that relates to the windowsill.

12 Show us how you measured that angle.

13 A. I thought I explained that on direct.

14 Q. You explained it, but I didn't get it.

15 A. I will try it again. Let's make it bigger and
16 hopefully simpler.

17 Windowsill is in green and certainly not to proportion.
18 The cut that I measured from this side is at an angle, not
19 indicated in any degree of accuracy -- perhaps more like that
20 (indicating). By placing -- now, I will use blue -- one of
21 two rulers parallel, or rather one of three, but this is
22 straight edge -- by placing a straight edge along parallel
23 to the cut, and then dropping a perpendicular from some
24 arbitrary point up and to the left, to the base, you have
25 a right triangle, where you can determine "A," height, and

1 "B," the base, and later, if necessary, theta, the angle.
2 But you know this angle and could draw perpendicular through
3 it -- and admittedly the diagram I made from the photograph
4 may point out the necessity of visiting the scene -- this
5 is four and eight inches here, and I do not think that the
6 intersection here is still going to be less than forty-two
7 inches, but that's something that someone should do with
8 accurate diagram.

9 Q. Okay. Now, in order to determine these facts, you
10 knew two things. You knew -- you thought you knew this
11 distance here, and you were wrong by at least four inches,
12 and probably six.

13 Well, let's do some calculation. You can calculate
14 that, can't you, and see how long it will be?

15 A. Yes. If you give me my diagram back, I will be happy
16 to expand it as many inches to the left as possible.

17 Q. Do you always do that by scale? Do you always do
18 your trigonometry by drawing pictures of triangles?

19 A. That's basically what trigonometry is. But not all
20 measurements are trigometric. That is an approximation to
21 see if the distance is available. Ideally we would like to
22 -- ideally we would take the ruler to see.

23 Q. Well, I think we have made our point.

24 THE COURT: Do you want him to do that,

25 Mr. Haile?

1 MR. HAILE: No, sir. I want to ask a few
2 more questions about these pictures.

3 THE COURT: All right. Go ahead.

4 BY MR. HAILE:

5 Q. I believe you testified that depending on which
6 picture you used, the distance there would be different as
7 you measure from the point on the windowsill to the wall,
8 depending on angle, depending on the distance back from the
9 picture, and so forth, right?

10 A. No. The distance would vary on the photograph, but
11 I am sure the static distance to the scene would not.

12 Q. I didn't mean to imply that it would. But depending
13 on which photograph that you used, you would have to apply
14 different expansion factor, right?

15 A. Yes.

16 Q. Now, which one did you apply, and how did you know
17 how to apply that? You knew that was an eight by ten photo-
18 graph and you didn't know how far back the man was standing
19 that took it?

20 A. No, sir.

21 Q. And you didn't know the kind of lens he had on his
22 camera, did you?

23 A. No, sir.

24 Q. Are you a photographer?

25 A. Yes.