369. Of what colour?—It is a very dark blue if it is damp when you get it, but as it dries up it gets a darkish white, and exposed to the weather it will pulverise; but it is not ground that will slip in any condition, because you can see it steep at many places along the railway-line.

370. Was it at only one point you came across that?—You will see it shown in every place

where found.

371. What is this ?-That is the same thing (clay-rock), but where the water has been soaking into it for ages of course it gets soft, and in a drive like that we could not be sure that it was solid except when it stood up high enough for the drive to cut sufficiently into it. I give my opinion that what is shown cut into was solid.

372. When you cut into this rock did you find any water run?—No water.

- 373. On the surface?—No; that was a very dry place every way between shafts 6 and 7.
- 374. Did you consider the nature of the ground at the bottom of this drive was of sufficient consistency to stand, and not run in among the stones?—There was not a shadow of a doubt but what it would stand for ever.
- 375. It was safe ground?—Yes, and every precaution was taken in the way we planted the stones; everything was done that could be done.

376. In this section you show sand?—Yes, two little bars of sand.

377. Do you think it probable that the sand ran in?—It could not run in, because it was dry before the stones were laid. As this was cut through we did not timber in a sense. There might have been a stick here and there, and a board put up at the side, perhaps; but there was no timbering in a sense from my point of view.

378. I only ask to make sure: it was not possible for the sand to run in and fill up the

interstices?—Yes; it was not possible.

379. Mr. Mountfort.] You had no fear of it tumbling in upon you?—No; that will stand longer than anything else that is there will stand, I think. Even the scrub we put in laced and forced in. Everything we put in was put in as tight as could be.

380. Mr. Skinner.] At whose orders were these drains put in?—The first drain, No. 1, I believe, was a suggestion of Mr. Brindley's through Mr. Ussher, and then of course it was carried out.

381. I want to know who gave the orders ?—I got orders from Mr. Ussher.

382. Did you go down to the solid rock-foundation when sinking that shaft in the airing-court?

—The main exploring-shaft is behind the airing-court.
383. Yes, that shaft?—Yes, we were several feet into it, as shown. As you will observe, we

turned back and entered in the drive higher up the shaft.

384. Is there any possibility of water getting down below this?—No. The reason why we entered higher up was to get some knowledge of the strata overlying the rock. If we get into solid rock and keep down in it, it is always the same strata.

385. Is there any possibility of water from the southward coming into your drive and through the building, escaping your drains?—Do you mean going behind it from the southward?

386. Is there any possibility of that?—Well, such a thing is possible, but it is not at all likely.

Taking all things into consideration I should be inclined to say No.

387. But there is a possibility of the water escaping your drains altogether and coming along the south?—In that case it must go between the wall and this 23ft. It narrows down as the drive comes closer to the building. It must come between 10 and 12, and I do not think that it is at all likely that any water would come that way, seeing that the ground to the south is so much drier.

388. It is possible, but not likely: that, then, will be your answer?—Yes.

389. The Chairman.] Have you formed any idea, from your drive, which way the ground-rock

dips?—Of course, we found different strata running from here to here [indicating on plan].

390. Will that line give your idea?

Mr. Blair: The section will show it as being very much broken.

Witness: It is so fantastic that one can scarcely imagine that that is correct. At this point [at the end of No. 2 drive] it is like what is shown, only there is a little less depth on one side of the drive than the other. Of course, the mean is taken as the centre line. It is highest on the side of the drive next to the building at places. Where that rock has been under the action of water for a long time it becomes soft for a long way down. You would not think it is the rock of the district until you go several feet down, when it gets gradually harder and harder.

391. Mr. Lawson.] What has been your experience previous to this with regard to the excava-

tion of buildings?—Of course I have had experience in supervising the construction of sections of railways as Inspector for the Public Works Department. I was also clerk of works at Grand Hotel and other buildings. I have had a general all-round knowledge, acquired on various works

during the past twenty-five years.
392. Of masonry?—Yes; but I have not been a mason.

393. On works of that class? Have you been connected with building at all?—I have told you how I have been connected with brick, stone, and wooden buildings.

394. I am speaking of the construction of buildings?—I have not constructed many buildings.

395. Have you ever, of your own knowledge, before come across any instance in which a drive, such as you have been describing, has been tunnelled underneath a building like this one has been? -Did you say a tunnel underneath the building?

396. We have been told that drain No. 2 was 17ft. below the foundation?—To the one side of

397. As a practical man, did it not strike you as being a rather peculiar thing that such should have been done?—Not at all. I have put in a lot of small drives in that manner. I will undertake to put in a drive without either danger to the building, myself, or to those working with me, from end to end of the building, and the deeper the drive is the better.

398. Then you do not know much about the construction of buildings?—I did not say "I do not know much about buildings." I have drawn buildings, and I have built buildings personally.