only thrice; at the thigh, seven times; at the forearm, five times; at the leg, ten times. Fifteen amputations of all kinds were performed on the hand, but only three on the foot. The lower extremity is much more liable to diseases requiring amputation; but of all parts the hand and forearm are the most exposed to accident.

These facts agree to a certain extent with what we see every year after operations at Guy's, St. Thomas's, the London Hospital, and other large institutions like these. We believe there is more secondary hæmorrhage after chloroform than twenty years ago; and if we can trace the prevalence of pyæmia to any causes more than others, they are overcrowding in London hospitals, and certain epidemic or meteorological alterations occasionally in the atmosphere of London and all large cities with which we are now familiar.

As a matter of curiosity and comparison, we here subjoin the analogous returns from Guy's Hospital. The similarity, nay, almost the identity, of the results, is somewhat striking. In other numbers of the ASSOCIATION JOURNAL, it has been shown that, with "all appliances and means to boot" of modern surgery, as compared in the statistics of actual surgical operations in the late Crimean war and Mr. Guthrie's statistics after Waterloo, the rates of mortality since 1815 have remained nearly the same.

Number of Surgical Cases admitted into Guy's Hospital.

Date.	Admissions.	Deaths.	Average deaths.
1845	2020	121	1 in 16.76
1854	2700	157	1 in 17.25

We have in no way picked these years out. The books are kept differently at each of these institutions; but the preceding figures give a general idea of the statistics of the two largest hospitals in London, before and after chloroform; and, as far as about 10,000 surgical cases may form an impression, one-half before and one-half succeeding the introduction of anæsthetics, the figures vary a little rather in favour of chloroform at Guy's, and against it in St. Bartholomew's Hospital.

The recent statistics of Professor Simpson are very interesting; but they only show 6 patients in 100 as saved by chloroform: so that, with the well known leanings of Dr. Arnott on one side and Professor Simpson on the other, we may dismiss chloroform from our consideration as a primary cause of death after operations. What its effect may be in inducing nervous symptoms, headache, secondary hæmorrhage, and, through hæmorrhage, debility and pyæmia, must remain still *sub judice*.
K.

Original Communications.

DIAGNOSTIC VALUE OF THE HYDATID SOUND ("SON HYDATIQUE" OF PIORRY).

By W. O. MARKHAM, M.D., Assistant-Physician to St. Mary's Hospital.

I AM desirous of appealing, through the ASSOCIATION JOURNAL, to the experience of my professional brethren concerning the peculiar and rare auscultatory phenomenon—hydatid fremitus—which was long ago described by Piorry, but the value of which, as a diagnostic sign, has not been yet satisfactorily determined: I allude to what Piorry calls the *son hydatique*—hydatid sound.

My attention has been called to the phenomenon in the following case. It will be seen that the question involved in the consideration of it is not one merely of learned curiosity, but really of direct practical interest.

A lad, who has been some time under my care as an out-patient at St. Mary's Hospital, and who is at present in the hospital, in the charge of Dr. Chambers, has had for some

length of time a large tumour occupying the right hypochondriac region, and extending far down into and widely over the right side of the abdomen. The general surface of the tumour is smooth, but there are one or two prominent, obtusely conical projections, about the size of half an orange, rising from the surface. One of these projections is soft and elastic, and, when percussed, communicates to the finger which is struck a most peculiar sensation, resembling very exactly that which arises from the vibrations of a loosely hung steel spring. When auscultation and percussion are practised together over the lump, the same idea is still communicated to the mind. The description of the vibration as given by Piorry very exactly explains it, and immediately occurred to me when I first noticed the vibration in this case, though I must confess that I had hitherto been disposed to look upon Piorry's subdivision of percussion-sounds as somewhat imaginative. Piorry says: "Il est impossible de rendre par des mots la sensation qu'il donne. Elle semble se rapporter à la fois au doigt qui percute, et à l'oreille qui l'écoute: le doigt éprouve une sorte de résistance élastique qui le repousse, et cela plusieurs fois de suite; l'oreille perçoit un son qui ressemble au bruit humorique quoiqu'il en diffère sous quelque rapport. Tout porte à croire que, dans les cas que j'ai observés, il s'agit de tumeurs hydatiques." . . . "La sensation que le doigt éprouve, et que accompagne le bruit, peut être entièrement comparée à celle que donne une montre frappée sur la surface opposée au verre."

He adds, that, relying upon facts which he had observed, he considers that the phenomenon indicates the presence of small hydatid cysts suspended in the fluid of larger cysts.

That the phenomenon is very rarely observed, we may conclude from the circumstance that Skoda, in referring to Piorry's description of it, remarks that he does not know if anyone else has made similar observations. It is possible that the reason of its being so seldom observed is, that it is so seldom sought for. Hydatid tumours also, do not, as a rule, present on the anterior parts of the liver.

The practical point of interest is, of course, involved in the diagnosis of such a case as here described. What is the nature of the tumour? Is it encysted? Is it of an hydatid character? If Piorry's view is correct, the latter must be its nature. Now, in such case, should the growth or enlargement be so great as to interfere with the functions of any of the vital organs, and so to endanger life, then might very properly be considered the propriety of opening the tumour, and giving exit to the hydatid masses. In this we should be only following the example which nature not unfrequently sets us; and, provided we can be satisfied that adhesions have taken place between the tumour and the abdominal walls, we may thus operate with safety. Piorry indeed mentions that Recamier had opened one of these cysts, having first applied caustic over the surface to produce adhesions between the peritoneal surfaces of the tumour and the walls of the abdomen.

If the tumour be malignant, of course surgical interference will have nothing to say to it.

The experience of the profession, to which I have here appealed, may perhaps assist in the diagnosis of this case. I may add, that the peculiar physical qualities of hydatids, the vibratile gelatinous-like movements of their coats when shaken or gently struck out of the body, quite favour the idea that they may give rise to the above stated auscultatory phenomena.

The questions to be considered, then, are:

1. Does this "hydatid fremitus" invariably indicate the presence of hydatids; or may it arise from any other cause?
2. Do hydatid tumours near the surface of the body, when percussed, always give rise to the fremitus? And, if not,
3. What is the particular condition of the hydatid cyst, which gives occasion to the fremitus?