indispensable. Cases of malformation about the anus, for example, occasionally occur, and you may be called upon to decide on the probable result, and on the propriety of an operation. Now, there are some instances in which the rectum is perfect, the anus being merely closed by the integument; here, by a division of the skin, relief may, perhaps, be afforded; but there are other cases where, in addition to the imperforate anus, *fæces* are discharged in the male through the urethra, and in the female through the vagina, in which relief by an operation is almost, if not quite, hopeless. In such affections as these, it would evidently give exactness to your decision, if you knew that in the embryo the intestine always ends at first in a cæcal extremity, which state may persist till birth, and so give rise to the first case supposed; and, further, that there is in the human *fœtus* at a very early epoch a connection between the rectum and the bladder, similar to the cloaca of birds, reptiles and fishes, which explains the nature of the second malformation to which we have alluded.

The history of development thus discloses the unity pervading the formation of the animal kingdom. Without the information afforded by this most interesting branch of anatomy, who could have surmised that, although, in the perfectly-formed animal, bronchiæ of gills are found only in one class of vertebrated animals (namely, fishes), and lungs only in the other four classes (amphibia, reptiles, birds and mammals), yet that all the five classes possess both lungs and gills at one or other epoch of their existence. The occasion is unsuitable to show you the evidence on which this interesting fact rests, or it would be easy to demonstrate that whilst the swimming bladder of the fish constitutes, as the illustrious Hunter averred, the rudimentary lung, the bronchial fissures and the bronchial bloodvessels of birds, mammiferæ, and man, are in reality the first outlines of gills. In that, to the physiologist, interesting class of animals, the amphibia, which really enjoy a two-fold form of existence, aquatic and aerial, nature, as in so many other instances, lifts up the veil which has in other animals so long obscured the fact just announced, and enables the zoologist to see—temporarily in the tarsi of the toad, frog and salamander; permanently in the perenni-branchiate amphibia, as the axoloth, the siren and the proteus—the co-existence of lungs and gills.

The facts just stated are susceptible of a practical application, as there is no doubt that the extraordinary complexity of the great bloodvessels about the human heart and their malformations, and those of the heart itself, have a relation to the original but transient branchial arches, and the single ventricular cavity.—*Mr. Grainger's Lecture.*

CENTRAL LACERATION OF THE PERINEUM.

BY T. C. COWARD, M.R.C.S.

Mrs. B., of Stepney, æt. 21, of rather a strumous diathesis, engaged me to attend her in her confinement. I was called at 10, A. M., 7th of April last, and was informed she had been in slight pain for several

hours; found the os uteri thoroughly dilated, and the head of the fœtus descending, the pains very forcible, and everything had the appearance of a happy termination. I was a little surprised, however, after a short period, to find that the head pressed strongly against the back part of the perineum and anus, distending those parts enormously without effecting any dilatation of the external parts, notwithstanding all the support I could give to incline the head to the arch of the pubis. At length, during a severe pain, she complained of something cracking; indeed I felt it myself give way under my hand; and on examination found a laceration about an inch and a half long, extending across the perineum close to the sphincter ani, from which arterial blood was escaping in a small stream. I then began to fear that notwithstanding all I could do to prevent, the child would escape there. I immediately called in a brother practitioner, and by our joint efforts we succeeded in delivering the head through the natural outlet in about half an hour; but the same pain which brought the head forced the shoulder and elbow through the perineum, causing a dreadful laceration. The placenta soon followed, and the uterus contracted well. We then made an examination, my friend introducing his finger by the vagina, while I did the same by the anus, and found the recto-vaginal septum torn to the extent of two inches, a few fibres of the sphincter, and the whole of the perineum, with the exception of about half an inch of fourchette. We merely sponged the parts and tied the legs together, and about three hours afterwards Dr. F. H. Ramsbotham saw the case with us, and directed two sutures to be applied; the bowels to be kept confined for a week, and the catheter to be used twice a day. All this was done; the parts however sloughed, and the ligatures, with a considerable portion of the neighboring structures, came away. Poultices were used; and on giving an aperient at the end of a week, we had the satisfaction of finding that the evacuations came through the natural passage. The black and zinc lotions were used, and by supporting her strength with wine, tonics, &c., in three months the parts had granulated, but the vagina was much contracted. She left town for the country.

In making a few remarks on this case, it is very important to know the cause of such an accident, with a view to its future prevention. Here due support was unremittingly given by me to the perineum. I certainly remarked that the sacrum seemed straighter than usual; that from the sphincter to the fourchette there was an unusual length, and its fibre seemed softer than natural. I could not account, however, for the obstinate rigidity of the external parts until the other day I was reading Dr. Ingleby's excellent practical work on *Obstetric Medicine*, wherein he accounts for it by the parties, when children, having chronic inflammation with discharge, so customary in the strumous habit. I therefore made inquiries of the mother of my patient, and found that for two or three years, when a girl, she had a troublesome discharge, and was obliged to use lotions with a syringe, &c., which, I have no doubt, gave rise to the preternatural thickening and rigidity of the external parts.

I have been led to make these remarks from an idea that a case like the one I have just related might happen to a young practitioner just

commencing his career, and the world might condemn him for his ignorance or inattention, when I am convinced, even by the best-directed efforts, such an accident can rarely be prevented; at all events, I know of no means, unless it would be justifiable to anticipate the laceration by the use of the scalpel.—*London Medical Gazette.*

STATISTICS OF INSANITY IN THE UNITED STATES.

BY EDWARD JARVIS, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

My article in the Journal of the 21st September, on the Statistics of Insanity in the United States, was founded on the facts given in the volume of statistical tables of the late national census, and seemed then to be correct: certainly they were such as I found them. I copied the gross sums of each State as they were at the foot of each of the several columns. There was an air of probability, in regard to all of these numbers, except in that of the colored insane in the free States. Here was an extraordinary and unaccountable proportion of insanity. The highest proportion was in Maine—1 in 14. The lowest was in New Jersey, 1 in 297. And all the intermediate gradations were in the several other States. Making the proportion, in all the free States, to be 1 lunatic or idiot to every 162 and 4-10ths of colored population. I gave these facts as they came to me, with the single exception of the town of Worcester, Mass., which was stated to have 133 colored insane paupers, but no white pauper insane. Knowing the facts in the case—that these poor lunatics were in the hospital—I transferred these 133 to the columns of the white, and so published it in the Journal.

Subsequently, thinking that there might be similar errors in regard to Maine, which might account for the great proportion of insanity reported to be in that State, I examined the detailed report of each town in the State, and carefully compared the number of the entire colored population with the number of colored insane, and to my surprise I found as follows:—

Limerick	Colored population	none	Colored insane	4
Lymington	"	1	"	2
Scarboro'	"	none	"	6
Poland	"	none	"	2
Dixfield	"	none	"	4
Industry	"	none	"	3
Dresden	"	3	"	6
Hope	"	1	"	2
Hartland	"	none	"	2
Newfield	"	none	"	5

Warned by this result, I examined, in similar manner, the details of every town and county, in all the free States, and with a like success.

Massachusetts has her share of mistakes in the printed reports.