space which, in fact, lies between it and the parietal aspect of the peritoneum as the latter is reflected from the walls of the pelvis over the rectum and bladder. In the loose connective tissue which occupies this "superior *pelvi-rectal space*," as Richet has named it, abscess occasionally forms.*

The symptoms which accompany the formation of an abscess in this region are obscure, and its progress slow, in consequence of the difficulty with which the pus finds an outlet. The musculo-membranous layer of the levator is not easy to penetrate. Ultimately the pus discharges, either by ulcerating into the rectum —high up, of course—or by working backwards through a partial opening which exists normally in the median line near the sacrum. It now escapes from the pelvis through the upper sacro sciatic opening, or gravitates downwards beside the rectum, and points externally near the anus, constituting a variety of fistula which requires a special treatment for its cure, and this we shall consider hereafter. The route by which the pus of an abscess of the upper pelvi-rectal space escapes is the same which is followed by an abscess taking its origin near the vertebral bodies, when it makes an opening near the anus, simulating fistula in ano.

These, then, are examples of varieties belonging to our category of abscesses near the anus and rectum, which we cannot open early, simply because they cannot be reached, even if accurately diagnosticated. I could not have covered the subject of the present lecture without mentioning them, nor could I have completed the etiology of fistula—as far as fistula takes its origin in abscess—which I also had in view.

Some years ago I watched with much interest the case of an eminent lawyer, who ultimately died exhausted from the effects of what I afterwards recognized as an abscess of the upper pelvi-rectal space. He was of delicate constitution, but not manifestly tubercular. The disease appeared at 55, after failure of the general health. Pus presented at the sacro-sciatic foramen, where I gave it vent, and the sinus, which communicated with the interior of the pelvis, never healed. Another abscess formed later on the buttock. The functions of the pelvic viscera were not seriously deranged. There was no evidence of diseased bone.

What are the chances of cure, without fistula, of abscesses near the rectum or anus? Allingham's table (*Disease of Rectum*, London, 1873, p. 19) of 4,000 consecutive cases of rectal disease observed at St. Mark's Hospital (out-patients) includes 196 abscesses, with the remark added that "of these 151 became fistulæ, and the rest were probably cured." This would give nearly twenty-three per cent., or about one in four, which I should consider somewhat too favorable a prognosis. It remains for us to improve the chances of cure by our methods of treatment, and the points I have sought to make look to this end. The following case, which illustrates still another variety of abscess, is of interest in this connection:

A lady of 28, of good constitution and well nourished, under treatment for a syphilitic taint communicated by her husband, rather suddenly failed in health, and soon after became conscious of pain and swelling near the anus. When I saw her there was a flat, fluctuating tumor, as large as a pullet's egg, extending from the left buttock to the anus. The pus was evidently just beneath the skin, but there was no redness at any point. It was opened freely, giving vent to a quantity of dark-colored and very fetid matter. Under quinine and wine this abscess healed entirely within six weeks, without any local treatment beyond a poultice leaving no fistula. I verified the cure by subsequent examination, for I had told her, before opening the abscess, as I always do, that it would not probably heal without another operation, and she was, therefore, suspicious. Three years afterwards this patient had another abscess of the same character, but on the opposite side of the anus, which was treated in the same way, and it also got well within the month. I have examined this lady since, and found the cure perfect.—*N. Y. Medical Record.*

*Anatomie Méd. Chirurg., Paris, 1873, 4th ed., p. 93.

COD-LIVER OIL.

Mr. L. Monrad Krohn, apothecary in Bergen (Norway), who has been for many years a dealer in cod-liver oil at the most important market in Northern Europe, furnishes the following interesting information to the *Pharmaceutische Handelsblatt (No. 105)*:

Properly speaking the shore of Norway is not rich in fish. The immense extent of coast, however, and the extent of the surrounding ocean, bring it about that the thinly-scattered population obtains a larger harvest of fish than might be expected, especially at particular seasons of the year.

During spring, summer and autumn the catch of herrings of different kinds and sizes, and during winter the haul of dorsch is exceedingly large. The latter (also known as skrei, cabillau, *Gadus morrhuus*, Linn.) occurs during January and February along the coast near Bergen and northwards, particularly about Sindmer and Romsdalen, where in one season between six and eight millions of fish are usually taken. Sometimes during the same months, but generally later, the catch begins at the Lofoden islands (67–69° N. lat.) with a very high average yield. For instance, during last winter no less than 24 millions of fish were taken. Later still begins the catch in Finnmarken, where it is often as abundant as at the Lofoden islands. The yield during last winter, however, amounted to only 10 millions.

In order to properly understand the manufacture of the various products obtained from these fish, it is important to remember that the fisheries extend for a distance of nearly 200 geographical miles, in the midst of winter, the days