

oil market. Whenever there is a scarcity of rasp, or olive oil or of seal-blubber, cod-liver oil takes their place. With an abundance of other oils, the price of cod-liver oil falls. It is said that as much as 1,500,000 kilos (about 3,275,000 lbs.) of this grade of oil are used annually for medicinal purposes.

The next grade of oil, which exudes from the livers by long standing or by fermentation, is mostly used for technical purposes, as in soap, candle, and chamois-leather factories.

Sometimes the purchasers of the livers do not have time to try out the oil, from one cause or another; and in this case the livers are left in the vats where they have been first thrown. Fermentation then sets in, and the oil, when afterwards removed, has a browner color, but a still palatable taste. This is the so-called *Oleum jecoris flavi fuscum* (light-brown cod-liver oil), the fourth grade, of which a good deal is exported to France, and which is the kind introduced by Dr. de Jongh, who was the first to make the traffic in cod-liver oil a personal lucrative undertaking. He purchases his oil, like other houses, allows it to clarify thoroughly, fills it into bottles, and charges a very handsome price. Of this quality 11,000,000 kilos were exported from Bergen in 1877; how much of it was used for medicinal purposes exclusively, it is impossible to say.

After the livers have been treated by one or the other methods, as detailed above, the residues are more or less roasted in large iron kettles and then expressed. A thick pyroligneous, greenish-brown to black oil is thereby obtained, being the fifth and last grade, which is used for tanning purposes.

The exports from Bergen during 1877 amounted to about 1,700 tons of the first and second grade, 1,400 tons of the third, 1,100 tons of the fourth, and 3,600 tons of the fifth.

Adulterations of cod-liver oil in Norway are unheard of, and besides are entirely uncalled for as the price of fish oils is so much inferior to other animal or to vegetable oils. The only foreign admixtures likely to occur are impurities from careless manufacture, as animal tissues (from the liver, etc.) and water. The oils obtained from other fish, although occurring in the market, are obtainable only in limited quantities, and at prices equal to that of cod-liver oil, so as to make the substitution for cod-liver oil unprofitable.

Only in the case of the first grade of cod-liver oil, *Oleum jecoris album*, is it necessary to be cautious, not on account of adulteration, but of accidental substitution. During the dorsch season, but more particularly after its conclusion, at the coast of Finnmarken, large quantities of the so-called *hoalkjarring* (*Seymnus borealis*) a large fish, 12 to 15 feet long, are caught. The liver of a single fish yields from 230 to 350 lbs. of oil, and since a fishing-boat may return, after

an absence of two or three days, with about two tons of liver, it is evident that a profuse supply of this oil may be placed upon the market. A good deal of this is now offered for sale, and being bright and clear, nearly free from stearin, and cheaper than genuine cod-liver oil, it is often palmed off on ignorant purchasers. This oil has mostly an acid reaction, a peculiarly disagreeable odor, and is very difficult to digest. Purchasers who are unacquainted with this oil, and who only look to external appearance and low price, may easily be imposed upon.

TREATMENT OF DISEASES OF CHILDREN.

Dr. P. Brynberg Porter, in the April number of *American Journal of Obstetrics*, makes a report of two thousand cases of disease in children treated at Demilt Dispensary, from which we make the following extracts:

CERVICAL ADENITIS.—"In certain instances the glandular trouble seemed plainly due to some local source of irritation, but for the most part it was associated with a scrofulous or otherwise cachectic condition. In some instances the careful use of mercurial ointment, almost always accompanied with the internal administration of tonic and alterant remedies seemed to act quite happily. No attempt was made to reduce the size of chronically enlarged glands by the injection into their structure of acetic acid or tincture of iodine.

ANÆMIA.—"Of course there were a vastly larger number of patients than twenty-nine who were anæmic; but in these the anæmia seemed to be the principle or only trouble, while in the others it was merely one of the manifestations of some general constitutional condition, like rachitis or malaria. In two cases the anæmia appeared to be the result of repeated epistaxis, from which the children had been suffering for some time, and in another the debilitated state of the system (without appreciable disease of the lungs or other organs) gave rise to cold night-sweats of considerable severity. In the latter case the patient, a girl of six years, soon recovered her health and strength under a better hygienic regimen and the use of cod-liver oil and iron, with fifteen minims of tincture of belladonna at bed-time, in accordance with the teachings of Ringer and Fothergill. In an article on Anhydrotics, published in the *Practitioner* a little more than a year ago, Dr. Fothergill says: 'The most potent of all anhydrotics, in my experience, is unquestionably belladonna. We are indebted to Dr. Sidney Ringer for our knowledge of this property of belladonna; and I have no hesitation in saying that the use of this agent completely changes the aspect of many cases of pulmonary phthisis. For the arrest of the exhausting night perspirations of phthisis belladonna is as potent as digitalis is in giving tone to a feeble heart. . . . My