Flukes.

In late numbers of the CANADA FARMER, we have touched upon the subject of flukes in deer and sheep. The whole subject of these *entozoa* has been profoundly investigated by Dr. T. S. Cobbold, P. R. S. He lately read a paper before the London Linnæan Society, on the Structure, Affinities, and Probable Source of the Human Fluke (intestinal worm), *Distoma crassum*. The parasite was discovered by Prof. Busk, about thirty years ago. The specimens lately brought under Dr. Cobbold's notice were secured from two patients,—a missionary and his wife who had resided four years at Ningpo, China, where they had freely partaken of fish, oysters, and salads. Seven specimens of fluke were obtained,—two from the lady, and five from her husband. Only two of these supplied the observer with new facts respecting the organization of the animal, and the best one of the two has since been deposited in the University Museum at Oxford. From a survey of all the testimony in point Dr. Cobbold concludes that the occurrence of the *Distoma crassum* in the cases under observation was to be referred to the consumption by the missionary and his wife of Ningpo oysters, or of fish insufficiently cooked.

The *Distoma* are trematode worms, and are called flukes from their resemblance in form to flukes, or flounders. They are not parasitic throughout their lives, but at times inhabit either open waters or dewy pastures. The *Distoma hepaticum* is common in sheep, causing the disease called Rot. This species is generally less than an inch in length, and is found in the liver, where it feeds on the bile. It is sometimes found in the human liver and *vena portæ*. It enters while in the larval state, into the bodies of molluscs and of aquatic insect larvæ, and thence is conveyed to the stomachs of animals feeding on herbage, and in this situation reaches maturity. A small species of this genus, the *D. hæmatobium*, is common in Egypt, in Africa, and along the Mauritius. In 363 examinations of the bodies of Egyptians after death, Griesinger found the parasite occurring in 117 cases. A small species, *D. ophthalmobium*, has been found in the lens of the human eye.

Dr. Cobbold recognizes 341 species of flukes, of which 126 belong to fishes, 47 to reptiles, 168 to birds, 58 to mammals, and five to the invertebrata. At the lowest estimate, he assumes that the order *Distomidæ* includes 400 species. The genus *Distoma* contains many species, infesting in their mature state different animals, and effecting a lodgment in different portions of the body. Some species locate themselves in the wrinkled membrane around the eyes of birds.

THERE ARE NOW seventy associations for the protection of game and fish in the United States and Canada, comprising a membership of over 5,000, who are chiefly gentlemen of influence and enthusiasts in the work they have undertaken—to prevent useless slaughter of game, and to restock our depleted streams with fish.

TRUFFLES.—A new and successful enterprise in agriculture is growing up in the South of France. Large tracts of land which have hitherto been comparatively worthless for for all purposes of cultivation, are now being planted with the variety of oak trees beneath which truffles are generally found. It is expected that, with this treatment, land which has lately been sold at £5 per acre will produce a crop of truffles worth £20 every year. The experiment has been extensively tried in the Department of Vaucluse, where, in the course of the last twenty years, 150,000 acres that were absolutely unproductive have been devoted to the culture of truffles, and are yielding a rich return.

HOW TO EXTRACT A FISH-HOOK.—The following is from the Dover, N. H., *Enquirer*—"Some eight years ago a lad of thirteen, a son of Charles E. Meyers, a well known citizen of Portsmouth, while fishing from one of the wharves of that city, caught a fish-hook in the fore-finger of the right hand, near the roots of the nail, drawing it into the bend of the hook. His father saw at once that the only thing to be done was to open the finger on a line with the hook and take it out, but preferred to call in their family physician to do it. After looking at it for a moment, the doctor, by a sudden twist, wrenched the hook from the finger, minus the barb and point. The parents were justly indignant at such treatment, and insisted that the hook was not all removed, while the boy came near fainting from extreme anguish. The doctor, however, insisted that no inconvenience would result, and dressed the finger in some simple and safe manner, and in due time the wound healed. But the finger and arm troubled him for a long time. After a year or two the lad's health had so far failed as to become a subject of serious alarm to his friends, he being subject to frequent and alarming fainting fits, and other spasmodic affections or symptoms. The state of affairs continued for years, with more or less intensity, until a year or two ago, when the boy's health became nearly or quite restored. In the spring of 1874, the young man, while dressing himself one morning, tore a pimple from his left shoulder, and on examining it, he drew from the flesh the point of the hook which seven years before was imbedded in a finger on the opposite side of his body."

FIRE-RESISTING GLUE.—A handful of quicklime, mixed in four ounces of linseed oil, and boiled to a good thickness, makes, when spread on plates and hardened, a glue which can be used in the ordinary way, but will resist fire.

A SARCASTIC CORRESPONDENT of the New York *Tribune* tells that journal "that one of the Agricultural Colleges in New-England can scarcely be said to have done the State no service, since a part of its land was utilized last year as 'pasture for the President's cow.'"

DR. WETHERELL, of *The Boston Cultivator*, remarks that "since eggs were bought and sold by weight, a great change has come over the trade" in certain portions of Massachusetts. "Now the small ones are mostly given to the children and hired help"—which shows the influence of circumstances.

TO FIND THE CONTENTS OF A BOX.—An approximate rule, doubtless sufficiently accurate for most practical purposes, is given for the measurement of grain, fruit, herbs, &c., in house or box, as follows: find the length, breadth, and depth, multiply them together, annex two ciphers, and divide the product by 124; the result will be the number of bushels, and the fractional remainder, if any, may be reduced to pecks and quarts.

MEDICINAL RHUBARB.—It is only a very short time ago since it was supposed that the origin of the true medicinal Rhubarb of commerce had been finally settled, and was the product of *Rheum officinale*, recently figured in the "Botanical Magazine," and admitted in Fluckiger and Hanbury's "Pharmacographia;" and already this comfortable arrangement has been disturbed. In a recent number of Regel's "Gartenflora" there is a figure of *Rheum palmatum var. tanguticum*, which is described as the "most genuine amongst genuine" Rhubarbs, and as the sort imported into Siberia by way of Kiachta. It was raised from seed collected by Mr Przewalski in south-west China, on the high plateau bordering on the high lands of Thibet.

WORKING UP RAW MATERIAL.—Farming is the changing of raw material (manure) into grass and grain, and thence into pork, beef, wool, &c. When the land is purchased, it is this raw material (fertility) that is paid for; that alone is the value. The rest is mere sand, or clay, or rock. The object of the farmer, then, should be, to secure his material *as cheap* as he can, and use *as much* as he can, always keeping his machine, the farm, in good working order, mellow, well drained and clean. Instead of this we are too apt to abuse the machine. The object of the farmer, then, must always be manure, fertility—how he can get this raw material cheapest, and work it best into grain, grass, &c., and thence into other products, such as are of most advantage to him.—*Country Gentleman.*

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