Domestic cattle—sheep and horses—are also attacked. But, according to some authorities, poultry are not only attacked but killed by these parasites. The larvae apparently can only live a few days in the skin of the victim.

As far as is known at present the larvae of *Trombidium* convey no protozoal disease, but there is a terrifying little creature, known as the Kedana mite, which in some districts of Japan causes a serious illness, with a mortality of some 70 per cent. Apparently it does not act as an inoculating agent itself, but the papule surrounded by the red area which forms as a result of its bite changes to a pustule, and the lesion becomes the point of entrance of bacteria which produce the so called "river" or "flood" fever. If these mites be carefully removed the patient suffers no harm.

Another species of mite, *Pediculoides ventricosus*, lives in stalks of cereals and is very apt to attack labourers who are dealing with grain. Their bites cause severe irritation, local swellings, reddening of the epidermis, and fever. In this particular species the female before she is fertilized has an elongated form 0.2 mm. in length and 0.07 mm. in breadth; but when fertilized the ovaries increase to such an extent that the posterior end of the body becomes spherical. In this respect it resembles that remarkable flea, the chigo or jigger. The larva is born with four legs and pairs almost immediately after emerging from the egg-shell.

A SIMPLE AND RAPID METHOD OF LOCALIZING BULLETS.

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A MEANS of localizing bullets which does not require the use of any special apparatus, nor involve the taking of radiographs, is often of value. A method of which I have made considerable use is the following. So far as I am concerned it is original, though it may, of course, have been described by others without my knowledge.

Suppose a bullet has lodged somewhere about the middle of the thigh. The patient is placed on an ordinary examination couch having the tube beneath. His feet are placed together, with toes pointing directly upwards. The x rays are turned on with a widely open diaphragm, and the general position of the bullet ascertained by the fluorescent screen.

The aperture is now gradually narrowed, and the tube moved about so that the image comes into the centre of the field, which, if the anticathode has been correctly centred, will be a perfect circle. This process is continued until the illuminated patch is not more than 1 in. in diameter. The image of the bullet is now vertically above the bullet itself.

The only special device necessary is now used. It consists of a metal ring having an internal diameter of about $\frac{3}{4}$ in., fixed to the end of a flat wooden handle 1 ft. in length (Fig. 3). The ring is slipped under the screen, and moved until its shadow encircles that of the bullet. A mark is made on the skin with silver nitrate in the centre of the ring, the screen being first removed, but care being taken not to displace the "ring-localizer."

Next, the screen is readjusted, and the ring is now slipped between the patient and the couch. The encircling position is again found, and a second mark made, this time on the skin of the lower aspect of the limb. If everything has been carried out properly, this second mark will be found vertically below the first.

I have tried to illustrate this diagrammatically in the accompanying figures, which represent a vertical section through the patient's limb, couch and tube, at right angles to their long axis. z B (Fig. 1) is the vertical beam of rays passing through the narrow aperture x and casting a shadow of the bullet B , which is marked at c ; A is the mark below the limb, obtained as above described. An incision commenced at c , and carried downwards at right angles to the surface along the line c A would eventually strike the bullet, but it is not yet possible to say at what distance below the surface it will be found.

To ascertain this the patient is rolled over on his side, so that the line A c is parallel with the plane of the couch

—that is, B is made to move through an arc of 90 degrees. The original procedure is now repeated and two other marks are obtained, a line joining which, B D , cuts A c at right angles (Fig. 2).

The patient is now returned to his former position, and an inspection of the marks will enable one to judge within half an inch the distance at which B lies below the surface along the line c A .

Should the surgeon desire an exact quotation in inches, a strip of lead, thick enough to retain the shape into which it is bent, is moulded to the surface of the limb from E to D . A nick is made in it corresponding with the mark c . It is then placed on a flat surface, so that a line joining its extremities represents the chord E D . A vertical measurement with a ruler from the nick (c) gives the distance c B .

Fig. 1.

Fig. 2.

Fig. 3.—Ring-localizer; scale $\frac{1}{2}$.

The above method is not readily applicable to foreign bodies in the neighbourhood of the pelvis, as the transverse line is difficult to obtain. Here I find the simplest thing is to ascertain the vertical line as above, and then to take stereoscopic negatives. These, as a rule, enable one to get a sufficiently good idea of the depth for practical purposes.

Points essential to the success of the method are:

1. The beam of x rays must be vertical, and the shadow of the bullet must be manoeuvred into the centre of the small illuminated field.
2. The "ring-localizer" must accurately encircle the bullet shadow.
3. The nitrate of silver marks must be placed at the centre of the ring. It is better to make dots for the vertical marks, and crosses for the horizontal, in order to avoid subsequent confusion.
4. Whenever the nature of the case permits, the patient should be operated on, in one or other of the positions in which the localizing was carried out.
5. Lastly, wherever possible, the patient should be taken directly from the examining couch to the operating theatre. Bullets sometimes alter their position to some extent even in twenty-four hours, and undeserved discredit is thereby brought upon the art of the radiographer.

Although the procedure described depends entirely on screen examination, it is not dangerous to the operator. The small field makes it unnecessary for him to expose his eyes to a direct x -ray beam, and the handle of the "ring-localizer" does away with all risk to the fingers.

THE Registrar-General, Somerset House, London, W.C., has been entrusted with the duty of compiling a Central Register of all Belgian and other war refugees who have been received in the United Kingdom, and the secretaries of local committees formed for providing accommodation for refugees are asked to apply at once to him for a supply of forms upon which to record the particulars required. Letters sent to the Registrar-General, Somerset House, London, W.C., do not require to be stamped. The envelopes should be marked "War Refugees" in the top left-hand corner.