UPPER LIMB.

PALM OF HAND.—No. 2.

THE DEEP FASCIA HAS BEEN REMOVED, TO SHOW THE MUSCLES, NERVES, VESSELS, AND TENDONS LYING UNDER IT.

The flexor sheaths of two digits have been opened to show the arrangement of the tendons; and the two middle lumbrical muscles have been cut away.

Muscles. The muscles of the ball of the thumb are—(1) the abductor pollicis, which is the most superficial, (2) the opponens pollicis, which lies largely under cover of it, (3) the flexor brevis pollicis, which lies to the inner side.

The **superficial palmar arch** is formed by the ulnar artery, and may be completed in several different ways, *e.g.* by anastomosing with the superficial volar; or, as here, it may not communicate with any large vessel on the radial side of the palm.

The arch rests successively on the anterior annular ligament, on the short muscles of the little finger, on the flexor tendons and lumbrical muscles, and on the digital branches of the median nerve. The ulnar artery gives off a profunda branch, and four digital vessels, whose distribution is well seen here, arise from the palmar arch.

The **ulnar nerve** lies on the inner side of the ulnar artery, just external to the pisiform bone, and soon gives off a deep branch which passes between the abductor and flexor brevis minimi digiti, while the superficial division passes on and divides into two digital branches. The inner of these is reinforced in this specimen by a twig from the dorsal branch of the ulnar nerve.

The **median nerve** enters the palm under cover of the anterior annular ligament, and therefore is not seen in that part of its course. It soon divides into (1) an outer branch, from which a stout nerve is given to the three muscles of the ball of the thumb, and digital branches to both sides of the thumb and to the radial side of the index finger, and (2) an inner division, from which two inner digital branches arise. The digital branches of this nerve give the supply to the outer two and sometimes three lumbricals.

There is here the communication in the palm between the median and ulnar nerves which is sometimes present.

The figures indicate—

Muscles.
1. Opponens pollicis.
2. Abductor ,,
3. Flexor brevis ,,
4. 1st lumbrical.
5. Abductor minimi digiti.

Vessels.
6. Tendon of flexor sublimis.
7. Tendon of flexor profundus.
8. Superficial volar.
9. Ulnar.
10. Superficial palmar arch.

Nerves, etc.
11. Princeps pollicis
12. Ulnar.
13. Outer digital branch of ulnar.
14. Muscular branch of median.
15. Radial.
16. Ligamentum longum of flexor tendon.