

gastric irritation. Young people bear it remarkably well. Within the physiological effects there is no special limit to the quantity, and, as in chorea, I make them my guide in the administration. A very important point is the continuous use for many weeks or months, omitting for a few days if unpleasant effects arise. Even after apparent recovery I advise the continuance of the drug. When the liquor arsenicalis is not well borne, the arsenious acid in pills may be tried, or the solution may be given hypodermically. In these cases of severe anæmia I never care to use hypodermic injections systematically, as I have seen ecchymosis of the tissues follow, and in several instances distressing small abscesses. By the rectum, it is usually well borne.

The three points I would indicate for this are :—

1. In what secondary anæmia is arsenic beneficial, and under what conditions is it preferable to iron?
2. In pernicious anæmia what cases are benefited by arsenic? What by iron? How shall we frame rules for our guidance in the matter, or must we still work empirically?
3. In the administration of arsenic, what is the best form and method?—*Therapeutic Gazette*.

## CONTRIBUTIONS TO PRACTICAL SURGERY.

BY PROF. JOHN CHIENE.

*Amputations of the Hand.* In partial amputation of the fingers and thumb, utilize any available skin for the flaps. Let your main object be to leave as long a stump as possible; do not sacrifice length in order to follow any special method of amputation. Let the cicatrix be, if possible, posterior, using the tissue on the anterior aspect of the digit for the principal covering to the divided bone. When the injury or disease is such as to necessitate amputation at a higher level than the attachments of the flexor and extensor tendons to the second phalanx, is it right to go at once to the knuckle and perform complete amputation of the finger? If the tendons can be saved and attached to the bone then the first phalanx should be left. If this cannot be done, then amputate at the metacarpophalangeal joint.

In amputating a digit, or a digit along with a portion of its metacarpal, avoid, if possible, any interference with the palm of the hand; avoid a cicatrix in the palm; a cicatrix in this situation is apt to be tender, and this interferes with the grasping power of the hand.

In amputating a finger do not interfere with the breadth of the hand. In a case requiring removal of one or more metacarpals leave, if possible, healthy periosteum; new bone is formed, and a more useful hand is the result. Let this rule regarding the periosteum hold good, very specially in connexion with the metacarpal bone of the thumb. Any osseous projection at the radial edge of the hand is a point of attachment for the muscles

of the ball of the thumb, and is of the greatest use as an opposing point to the fingers.

In patients in whom manual labor is their source of income, do not, in amputating the fore and little fingers, interfere with the heads of the corresponding metacarpals, if a sufficient covering can be obtained. In other cases, for the sake of appearance, the head of the metacarpal may be removed obliquely.

Take, if possible, your main flap in amputating any of the fingers from the flexor aspect of the finger. Do not approach the palm in your incisions. In the middle and ring fingers the best result—looking to use and not to appearance—is obtained in the following way: Enter the knife at the knuckle, carry it outwards and forwards towards the web until a point midway between the anterior and posterior aspects of the web is reached. Do the same on the other side of the finger; these two incisions form a right angle with each other. A flap is then made from the anterior aspect of the first phalanx. The finger is removed, and the flap is turned back into position, the apex of the flap fitting into the angle where the incisions begin over the knuckle. By this method, the incisions do not approach the palm, the breadth of the hand is not interfered with, and the resulting cicatrix is posterior.

In crushes of the hand save as much as possible; save a finger or a portion of a finger; save any part of the thumb; save any portions of the metacarpals. The most useless natural hand is more useful than any artificial substitute.

In *contractions of the palmar fascia* Busch's operation in severe cases affords the best result. In simple cases the subcutaneous division of the tense fibres is generally sufficient. It is to be remembered that there are two directions in which the contracted fascial fibres must be divided parallel to the skin surface, and at right angles to the skin surface; by the first, the fibres at right angles to the skin surface, which dip down between the flexor tendons, are divided; by the second, the longitudinal fibres of the contracted palmar fascia are divided.

Busch's operation consists in dissecting the contracted fascia from the flexor sheaths by a V-shaped flap, the apex of the flap looking to the wrist; the fingers are then extended, and the flap attached with horse hair stitches to the incision, while the opposing edges of the proximal portion of the raw surface are accurately stitched together. The result is a Y-shaped cicatrix, and an extended finger or fingers with no tendency to subsequent contraction.

In *wounds of the palm* the persistent hæmorrhage is often due to the palmar vessels being simply punctured, and not cut fairly across. Divide the artery wounded by deepening the accidental wound. Retraction of the wounded vessel takes place, and simple pressure is sufficient to arrest the hæmorrhage. Check the force of the blood flow by fully flexing the forearm on the upper arm with