pleted as follows: The left outside strip is carried around the back of the neck, crossing obliquely upwards over the occiput, and terminates on the right side (B). The right tail (C) joins B on the forehead, when they are secured with a pin, or stitched together. The inside strips (D) are carried directly upwards, and joined on the vertex, and confine all the ends. They may be drawn up through the outside strip on the chin, as in the figure, or carried outside.

All other bandages of the face are either obvious modifications of the above, or of those of the head.

## PART NINTH.

### BANDAGES FOR THE NECK.

Bandages for the neck are intended to be applied for injuries to this region, but are not necessarily applied directly to the injured surface. Thus, wounds of the neck need dressings that will keep the wound closed, and these can only be applied by attaching them to the shoulders, chest, or back from the head.

The CIRCULAR BANDAGE for the neck is made by commencing low down, on the neck, and passing circular turns around the part, gradually working upwards, until the desired extent has been attained. Great care must be taken to avoid exercising too much compression, as the circulation might be seriously impeded. This bandage is used mainly to retain dressings on the neck.

The Posterior figure of eight, (head and axilla), is an exceedingly secure bandage, and well conceived to hold the head firmly. It is used in case of transverse wounds of the back of the neck, to hold the edges in apposition; or in burns of the anterior portion, to overcome the tendency to contraction. It is also useful in maintaining the head in one position, for many purposes. The following description, as well as the accompanying cut—is taken with some modifications, from a Manual of Bandaging, by Leonard: Standing at the back of the patient, place the initial end of the bandage at the occiput, 1, and confine by a horizontal turn, 2, about the head. Bend, now, the patients head backward,

and carry the bandage up over the left parietal protuberance, then down across the neck to the right axilla, thus finishing

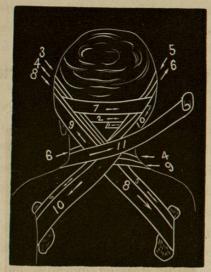


FIG. 46

turn 3. Then carry the roller head under the arm, up over the front of the right shoulder, over the back of the neck, then to the left parietal protuberance, in line of course 3, thus finishing course 4. Continue the course of the bandage about the forehead, then mount the right parietal eminence, and descend diagonally across the back of the neck to the left axilla, thus finishing course 5. Pass the bandage under the arm, up over the front of the shoulder, over the back of the neck, and remount on the right side of the head, in line with course 5, thus finishing turn 6. Make, then, a complete horizontal circuit of the head, for course 7, coming down over the left parietal eminence to the right axilla for turn 8. Make course 9 similar to course 4; course 10 to course 5; course 11 to course 6, slightly overlapping the preceding turn in each case, and finally exhaust about the forehead and occiput, confining the end as usual.

The ANTERIOR FIGURE OF eight, (head and axilla) is used to confine the head inclined forwards in wounds of the throat or burns, and is a very firm and safe bandage. It is applied by reversing the method laid down in the posterior figure of eight.

The ANTERIOR DOUBLE "T" of the head and thorax is occasionally employed for purposes similar to the above, but is not in as general use as the figure of eight. It is a



FIG. 47.

compound bandage, made of a double T of the head, and of a body band encircling the thorax provided with suspenders passing over the shoulders and attached to the band. A corset, or wide band of muslin may be used. A double "T" bandage is prepared, with two tails about eighteen inches .ong. Between these tails, and running in an opposite direction, another tail a foot long is affixed; the two tails on one side pass down each side of the face to be at-

tached to the body band, near the median line. The remaining or upper tail is directed over the vertex, and confined by circular turns of the body of the bandage (a), when the free end of the vertical band is turned up and confined on the vertex.

THE POSTERIOR DOUBLE "T" is made by a reverse process, and is used for the same purposes as the posterior figure of eight.

The bandages of Mayor are exceedingly useful in this region, perhaps more so than in any other part of the body.

The CERVICAL CRAVAT is made by folding a handkerchief of suitable size, into the form of an ordinary cravat; apply the middle of the cravat on the neck in front, carry the ends around completely, and knot them in front like an ordinary cravat. It is designed to take the place of the circular bandage in this region.

The first is folded and knotted securely around the thorax. The second is folded in the form of a triangle, the base of which is applied to the occipital protuberance, one angle carried up over the vertex and resting on the forehead. The other angles are carried around the head, confining the frontal angle, and carried backwards over the ears, are knotted to the thoracic band. As the lateral angles are brought back, they are securely pinned, or secured, over the ears to prevent their slipping down. This dressing is used for similar purposes to the posterior figure of eight.

The OCCIPITO-STERNAL cravat is the reverse of the above, and is designed to take the place of the anterior figure of eight.

The PARIETO-AXILLARY cravat is made of two handker-

chiefs. The first is folded in form of a cravat, and knotted around the shoulder towards which the head is to be inclined.

Supposing the head is to be inclined to the left, the second handkerchief is folded in a triangular form, the base of



FIG. 48.

which is to be applied to the left parietal eminence, and one angle carried up over the vertex. The remaining angles are carried around the head, confining the first angle, and carried well above the right parietal eminence, when they cross each other. They are then continued to the place of starting, the head well flexed to the left, and the ends knotted around the axillary band.

This dressing is used in case of burns or wounds of the sides of the neck, and is very secure.

The same object may be attained by a figure of eight of the head and axilla, but it will be much less secure and is very easily deranged.

# PART TENTH.

### BANDAGES FOR THE UPPER EXTREMITY.

The bandages for this region may be classified [as follows: For a single finger; all the fingers; fingers and hand; of the hand alone; arm to the elbow; arm to shoulder; arm and shoulder; Mayor's triangles; and the various slings.

(a). For a single finger.—A bandage is needed about an inch, or a little less in width, and a yard long. A turn



FIG. 49.

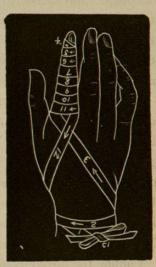


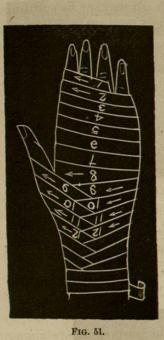
FIG. 50.

or two is taken around the wrist, and thence carried across the back of the hand to the tip of the finger, carried over this, a reverse turn is made around the finger-tip, to confine the reverse and the previous turn. The turns are then made in a circular manner, overlaping half their width, until the base of the finger is reached, when the roller is carried across the back of the hand to the wrist, and expended in circular turns. It may be confined in the usual way, or by splitting the end for some distance, and tying the tails around the wrist.

- (b). All the fingers.—In cases of burns of the fingers and hands, it is often required that the fingers be separated, so that no adhesions may occur. The form of bandaging usually employed is known as the "gauntlet," and is applied as follows: It will require a roller eight yards long and an inch wide. Confine the initial extremity with a few circular turns about the wrist, descending to the tip of the little finger; return, as in the case of the single finger, to the base of the finger, and thence to the wrist again. Make another circular turn at the wrist, and around to the third finger. Each finger and the thumb are to be successively bandaged; after completing the thumb cover the hand by circular turns, ascending to the wrist, where the end is fastened.
- (c). The hand alone.—For the purpose of retaining dressings on the hand, it may be necessary to apply a bandage leaving the fingers free. The circular bandage or the demigauntlet may be used. The former is made by using a bandage a yard long and an inch in width; commence at the base of the fingers, passing circular turns, gradually ascending, until the wrist is reached, where the end is confined. The demi-gauntlet is made as follows:

Confine the initial extremity by a circular turn about the wrist. Carry the roller from the radial side across the back of the hand to the base of the little finger; encircle the finger with a single turn, from outside in, between it and the next finger. The roller then crosses the previous turn, is carried across the palm of the hand to the radial side of the

wrist, up to the third finger in the same manner, across the back of the hand; around the finger, across the back of the





Frg. 52.

hand to the ulnar side, across the palm of the hand to the radial side of the wrist again. Again descend to the next finger, and so on, until every finger and thumb has been included, when expand the roller on the wrist, and secure the end.

(d). Of the ARM, to the elbow.—When the hand is included, this dressing may be a continuation of either of the others, the arm being ascended by reverse turns as necessary, or, as is the common way, as follows;

Extend the arm, the hand being pronated, the fingers extended and close together, and the thumb extended underneath the forefinger. Lay the initial end of the roller in the palm of the hand, directing the patient to hold it with

the thumb; carry the turn over the ends of the fingers, make a sharp turn, to confine the ends, and cover in the finger and

hand by circular turns until the base of the thumb is reached, where one or two reverse turns may be needed to make the turns lie smoothly. Ascend the arm by the ordinary spica method, confining the end, as usual, immediately below the elbow.

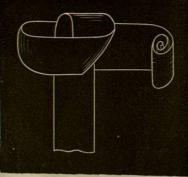


FIG. 53.

(e). Of the ARM to the shoulder.—Continuing from where the last bandage terminated, the arm being more or less flexed, according to circumstances, the elbow is covered in by a series of figures of eight. When completely covered, the arm is ascended mostly by circular turns, and the

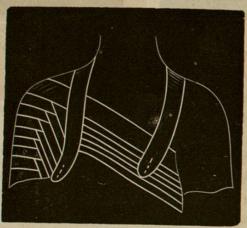


FIG. 54.

end confined, as usual, immediately below the insertion of the deltoid.

(f). Of the arm and shoulder.—Commencing where the

last bandage terminated, being a continuation of it, the roller is carried by circular turns, close up into the axilla, across the chest to the opposite side; thence under the axilla, ascending the back to the shoulder, which it encirles in a figure of eight, to be then carried back and across, in the same manner, until the shoulder is covered in by successive figures of eight, when the terminal end is to be carried up around the neck, and secured as in the figure (54).

MAYOR'S "triangles" are employed largely in this region to form slings, the most commonly used are as follows:

FOR THE HAND, to retain dressings, is made by applying the base of the triangle on the palmar side of the wrist, drawing the apex over the ends of the fingers, and confining it on the opposite side of the wrist by tying the two angles

over it (fig. 55).

In wounds of the wrist it is often necessary to keep the hand in a state of extreme flexion or extension, until healing is well advanced. Proper splints should be employed, but for temporary purposes the following may be used.

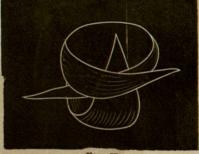


FIG. 55.

EXTENSION (OR FLEXOR) FOR THE HAND, made of three cravats. One is knotted firmly around the arm, above the elbow; another around the hand, excluding the thumb. The third is passed from one to the other, on the outer or inner face of the arm (as flexion or extension is desired), and knotted firmly (fig. 56).

A sling for the arm may be made in one of three ways.

(a). Knot a handkerchief loosely about the neck. Form

another triangle; the base is placed under the hand, the two tails being knotted to the cervical cravat (fig. 57).

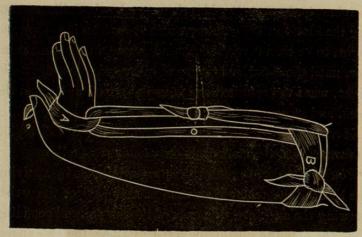


FIG 56.

(b). Fold a large triangle, say sixty inches on the base, and twenty-four in height. Flex the arm across the chest with the fingers extended. Place the centre of the base



F1G. 57.

under the fingers, and carry one angle up under the axilla, across the back to the opposite shoulder, where it meets the other angle, and both are knotted together. The apex is

brought forward over the elbow and securely pinned (fig. 58).



FIG. 49.

(c). With a smaller triangle place the base under the finger, the apex only extending to the elbow. Knot the angles of the base around the neck.



A simple sling may be made as illustrated by fig. 59.

One of the best slings for the arm I have ever used, is

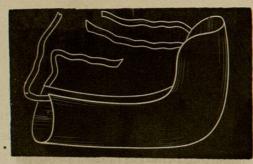


Fig. 60.

made from a long legged stocking. By cutting it up on t anterior border, and attaching tapes to each angle, the arm is better supported and more securely held than by any dressing, for a similar purpose, with which I am acquainted.

## PART ELEVENTH.

#### BANDAGES FOR THE TRUNK.

The trunk will often require bandaging for fracture of the ribs, for emphysema, perhaps for dropsy; and the mammæ will need supporting bandages in mastitis, hypertrophy, and some forms of tumor.

Spiral of the chest.—Drop about a yard of the bandages over the left shoulder, in front. Carry the roller down the

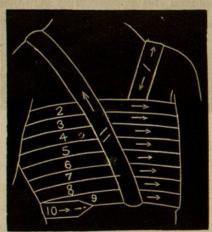


FIG. 61.

back, diagonally to the right axilla, whence make the first turn about the chest (2). Continue these turns, working downwards, until a sufficient number have been taken, each turn overlapping about one-half of the preceding, and fasten the end as usual (7). Next take the free end (8), carry it up over the turns to the right shoulder, and secure it to the turns on the back. This has the effect to counteract the