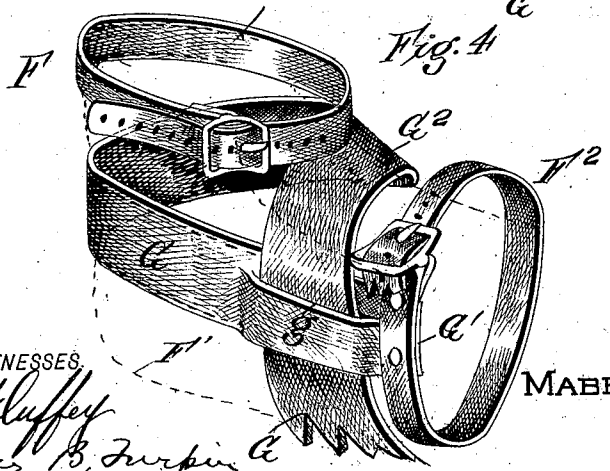
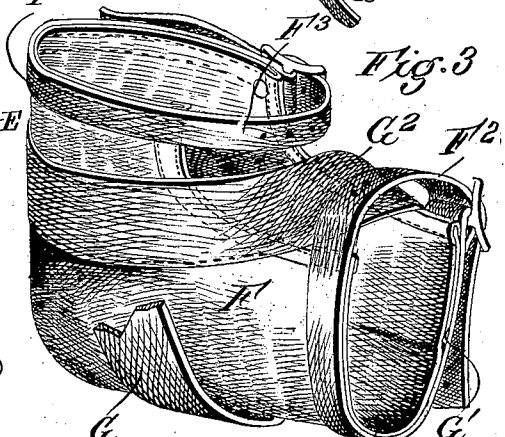
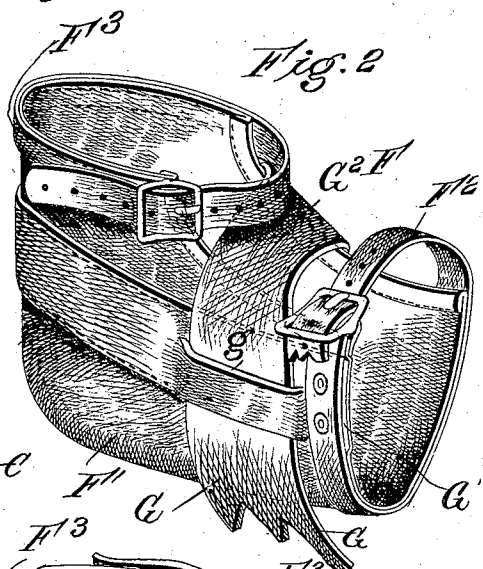
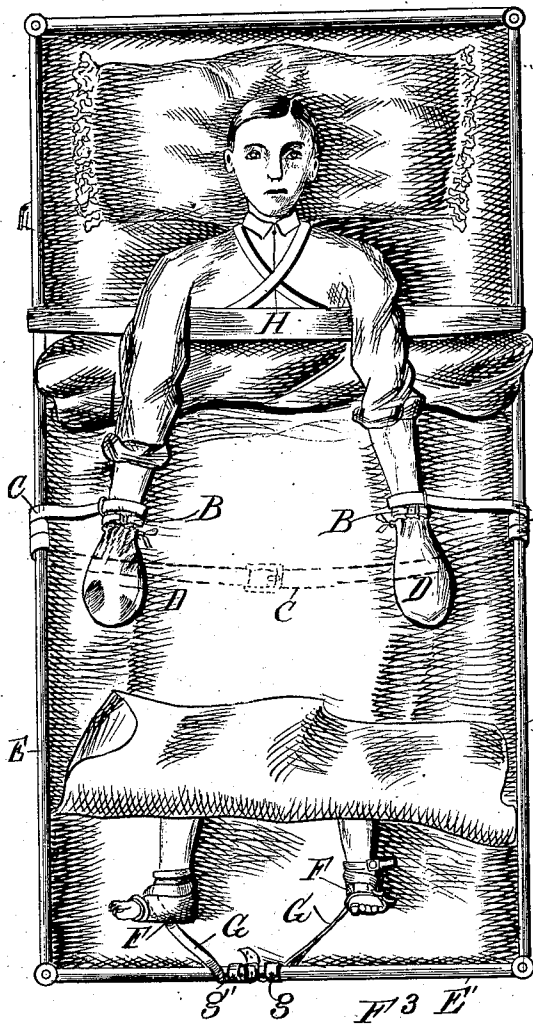


No. 853,025.

PATENTED MAY 7, 1907.

M. E. McCALMONT.
SAFETY OR RESTRAINING DEVICE.
APPLICATION FILED DEC. 17, 1906.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 5

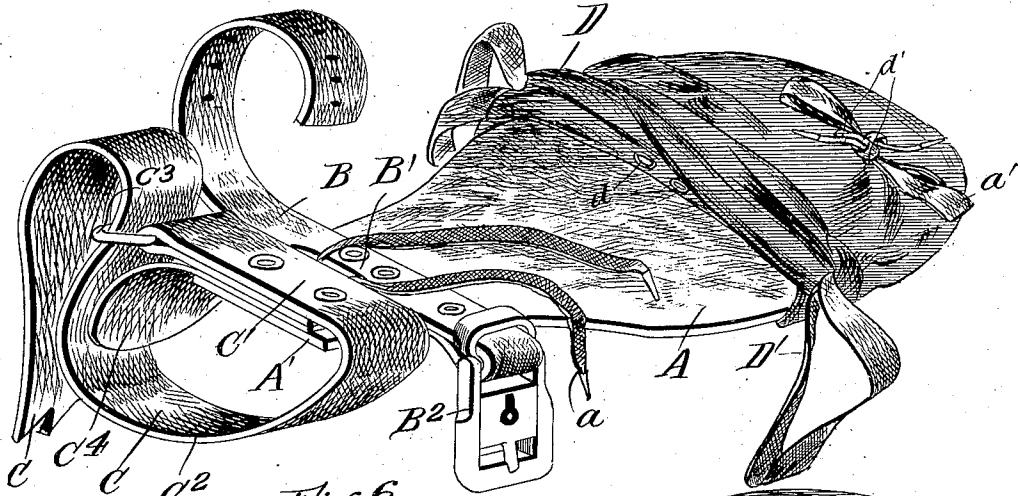


Fig. 6

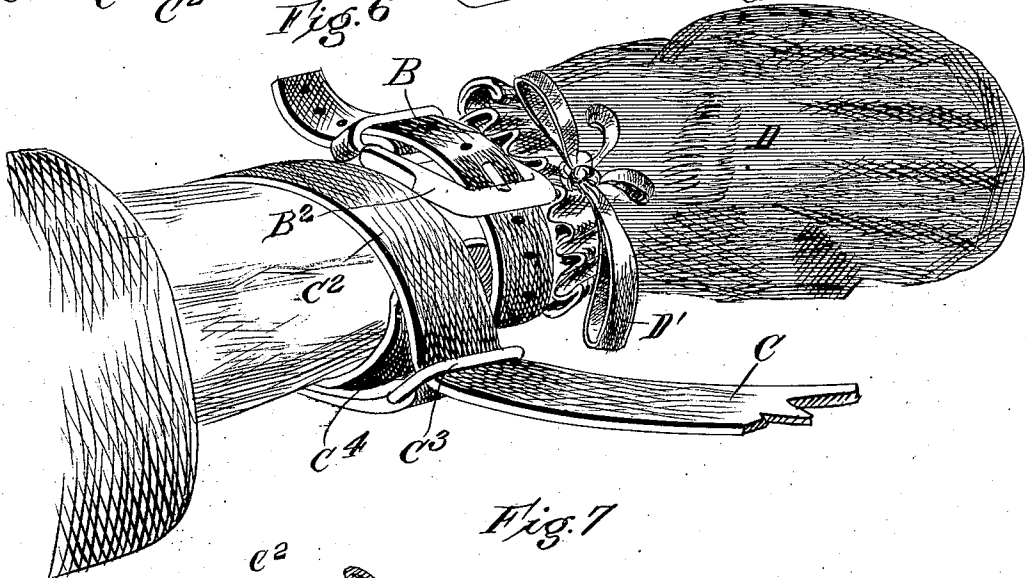
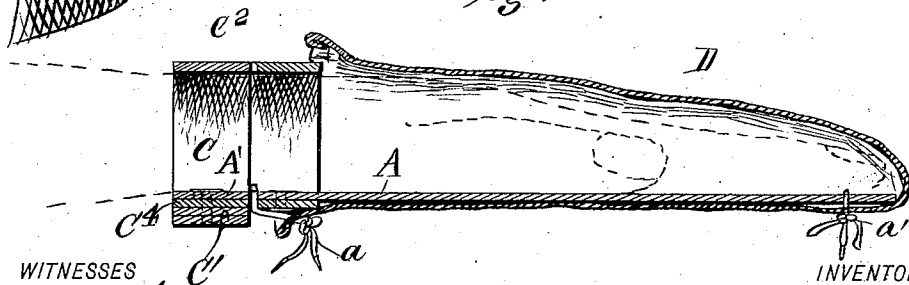


Fig. 7



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UNITED STATES PATENT OFFICE.

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SAFETY OR RESTRAINING DEVICE.

No. 853,025.

Specification of Letters Patent.

Patented May 7, 1907.

Application filed December 17, 1906. Serial No. 348,188.

To all whom it may concern:

Be it known that I, MABEL E. McCALMONT, a citizen of the United States, and a resident of Warren, in the county of Warren and State of Pennsylvania, have invented an Improved Safety or Restraining Device, of which the following is a specification.

This invention is an improvement in restraining devices designed especially for use in hospitals and asylums, or by the general nursing and medical profession, for restraining the movements of delirious, insane or unruly persons, including infants and children, which have to be restrained or held in bed; and the present invention relates particularly to restraining of the limbs, arms and legs, of a patient, and consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view of a patient in bed with the arms and legs restrained by my improved devices. Fig. 2 is a detail perspective view of the outer side of one of the foot holders. Fig. 3 is a detail perspective view of the inner side of one of the foot holders. Fig. 4 is a detail perspective view showing the straps of the foot holder, the body of the foot holder being indicated in dotted lines. Fig. 5 is a detail perspective view of one of the hand holders with the flexible mitten unfastened and pushed back along the stiff palm plate. Fig. 6 is a detail perspective view of the hand holder, a hand being illustrated in place therein; and Fig. 7 is a detail longitudinal section of the hand holder with the hand therein.

By my invention I provide holders for the terminal members of the limbs, that is to say, either the arms or the legs, comprehending within the term "terminal members", the hands or feet of the patient, the holders for the hands and feet being especially designed for their respective terminal members, and I provide in connection with these holders, straps for securing them upon their respective terminal members and straps for restraining the movements of the respective terminal members. This is important, as I find it desirable, in fact, practically necessary, to the humane operation of devices of this class, that the straps for restraining the movements of the limbs shall be so connected with the holders for the terminal members, that said straps will tighten when under stress upon the limb and will slacken when the stress is released. In doing this, I

form the restraining straps with loops encircling their respective members, one end of the strap being secured to its respective holder for the terminal member and the strap then passing around the limb and through a keeper, in which it slides longitudinally, so that under stress, the loop will tighten upon the limb and then will quickly slacken when the stress is removed, so that under stress the restraining strap will not have the tendency to pull the holder off the terminal member, but will tighten itself upon the limb, and thus more securely hold the holder upon the said terminal member.

The holders for the hands and feet differ to suit the anatomical structure of the said parts, and I will first describe the holder for the hands. These holders, except that they are made rights and lefts, may be alike, and they comprise a flat comparatively rigid palm plate A, which may be of suitable sole leather or other like material, and which is made of the shape shown in Fig. 5, with an edge contour which in practice extends outside the outlines of the hand, the palm of which is rested flat against the palm plate A so the latter will prevent the use or operations of the hand in clutching or grasping any object when the device is applied as shown in Fig. 7, and yet will permit a sufficient movement of the fingers and thumb to prevent any cramping thereof. This palm plate has a shank or wrist extension A', to which are secured the strap B for fastening the holder upon the hand, and the restraining strap C. To this wrist portion are secured strings a' and near the tip end of the palm plate I also secure strings a which in practice are passed through eyelets d and d' in the mittens to hold the same in place upon the palm plates.

The mittens D are in the form of bags, adapted to be slipped over the tip end of the palm plates and to extend over the hand of the patient back to about the wrist, and are provided at their open wrist ends with draw strings D' by which they may be tightened upon the wrist of the patient.

The restraining strap C is secured at C' to the holder and preferably to the palm plate A, and is formed into a loop C² to pass around the wrist, and thence passes through a keeper guide C³ through which it freely slides, a guard flap C⁴ being arranged within the loop to prevent the direct contact of the keeper C³ with the wrist of the patient. From the

keeper C³, the strap C extends to the side of the bed and may be wrapped around the side rails E of the bed and secured independently thereto, or the strap C from the opposite hands may pass around the side rods E and be buckled together beneath the bed as indicated by dotted lines in Fig. 1. It will be noticed that these straps C permit the free movement of the arms outwardly and yet restrain their movement toward each other, and under stress of the movement of the arms toward each other, the loops C² of the straps C will tighten upon the arms of the patient, as will be understood from Figs. 1 and 5 of the drawings.

The strap B for securing the holder upon the hand, is secured at B' to the palm plate A, and fastens by a buckle B² which may be any suitable form of lock buckle, that shown being a lock buckle on the market at the present time, and the particular construction of which I do not claim to be of my invention.

The mitten or bag D is preferably made of any suitable open-mesh fabric, adapted to permit free ventilation of the hands.

The foot holder F has a body portion F' which may be of soft kid or other suitable leather or material, and is adapted to encircle the ankle portion of the foot, and is provided with an instep strap F² at one end and an ankle strap F³ at the other end, the strap F³ operating to secure the holder F upon the foot. The restraining strap G is secured at one end G' to the instep strap F², and extends thence back along the outer side of the body portion F', around the heel thereof, thence forward along the inner side of the body portion F' and curves at G² over the instep to the outer side of the holder F and thence down through a keeper *g* formed by slotting the strap G adjacent to the instep strap F², and thence down below the holder and inwardly and may be secured at *g'* to the foot bar E' of the bed, preferably at about the middle thereof. This keeper *g* through which the restraining strap slides corresponds to the keeper C³ of the hand restraining strap, and it will be noticed that the parts are so related in each instance that stress upon the restraining strap operates to tighten the loop thereof upon the limb, and such loop will immediately slacken when the stress is removed.

In connection with the restraining devices before described, I prefer to employ the safety or restraining device H shown in Fig. 1, which forms the subject matter of my previous patent No. 783,297, dated February 21, 1905, for the reason that their combined use will constitute the means of comfortably, humanely and effectually restraining the strongest and most violent maniac, without resorting to that ancient, barbarous and unsanitary "strait-jacket", or similar device,

so often responsible for many disastrous results and so much general uncleanness; while, on the other hand, the use of my devices, thus combined, do not handicap the possibility of a perfect care of the patient.

What I claim is—

1. A restraining device comprising a holder for a terminal member, a fastening device for securing said holder on the terminal member, and a restraining strap connected with said holder and having a loop to pass around the limb of a patient, and a keeper in which the strap slides freely whereby the loop may be tightened by stress upon the restraining strap and will loosen or slacken when such stress is released, substantially as set forth.

2. A restraining device comprising a holder adapted to receive a terminal member, a strap for securing the holder upon the terminal member, and a restraining strap connected with said holder for limiting the movements of a terminal member secured in the holder restraining strap having a loop to pass around the member and adapted to tighten and slack with variations in stress on the strap, substantially as set forth.

3. A restraining device comprising a holder for a terminal member, means for securing the holder upon said member, and a restraining strap connected with the holder and having a looped portion to pass around the limb of a patient, and a keeper in which said restraining strap slides, whereby the loop will tighten under stress on the restraining strap and may slacken when the stress is released, substantially as set forth.

4. A restraining device comprising a holder for a terminal member, a restraining strap connected with said holder and having a loop and a keeper through which the strap slides freely in both directions whereby the loop may be tightened or slackened by variations in stress on the strap, and means independent of the restraining strap for securing the holder upon the terminal member of a patient, substantially as set forth.

5. A restraining device having a comparatively stiff palm plate and a mitten fitted removably thereon to hold the hand to the palm plate, and means for securing the holder upon a patient's hand, substantially as set forth.

6. In a restraining device, a hand holder comprising a comparatively stiff plate against which the hand may rest flatwise, a mitten slipped over said plate to retain the hand, and means for securing the holder upon a patient's hand, substantially as set forth.

7. In a restraining device, a hand holder comprising a comparatively stiff plate, a mitten for holding a patient's hand to said plate, a strap for securing the holder upon the hand, and a restraining strap connected with the holder, substantially as set forth.

8. In a restraining device, a hand holder

comprising a comparatively stiff plate against which the hand may rest flatwise, a mitten slipped over the said plate for retaining the hand, strings for securing the mitten to the plate, a draw string for closing the open end of the mitten, and means for securing the holder upon a patient's hand, substantially as set forth.

9. In a restraining device, a hand holder comprising a comparatively stiff plate, a wrist strap secured to the plate for fastening the same upon a patient's hand, a restraining device also connected with the plate, and a

mitten for holding the hand of a patient to the plate, substantially as set forth. 15

10. In a restraining device, a holder for a terminal member, comprising a body portion, an instep strap, and an ankle strap in connection therewith, and a restraining strap secured to the body portion and having a loop and a keeper through which the strap slides, substantially as set forth. 20

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