

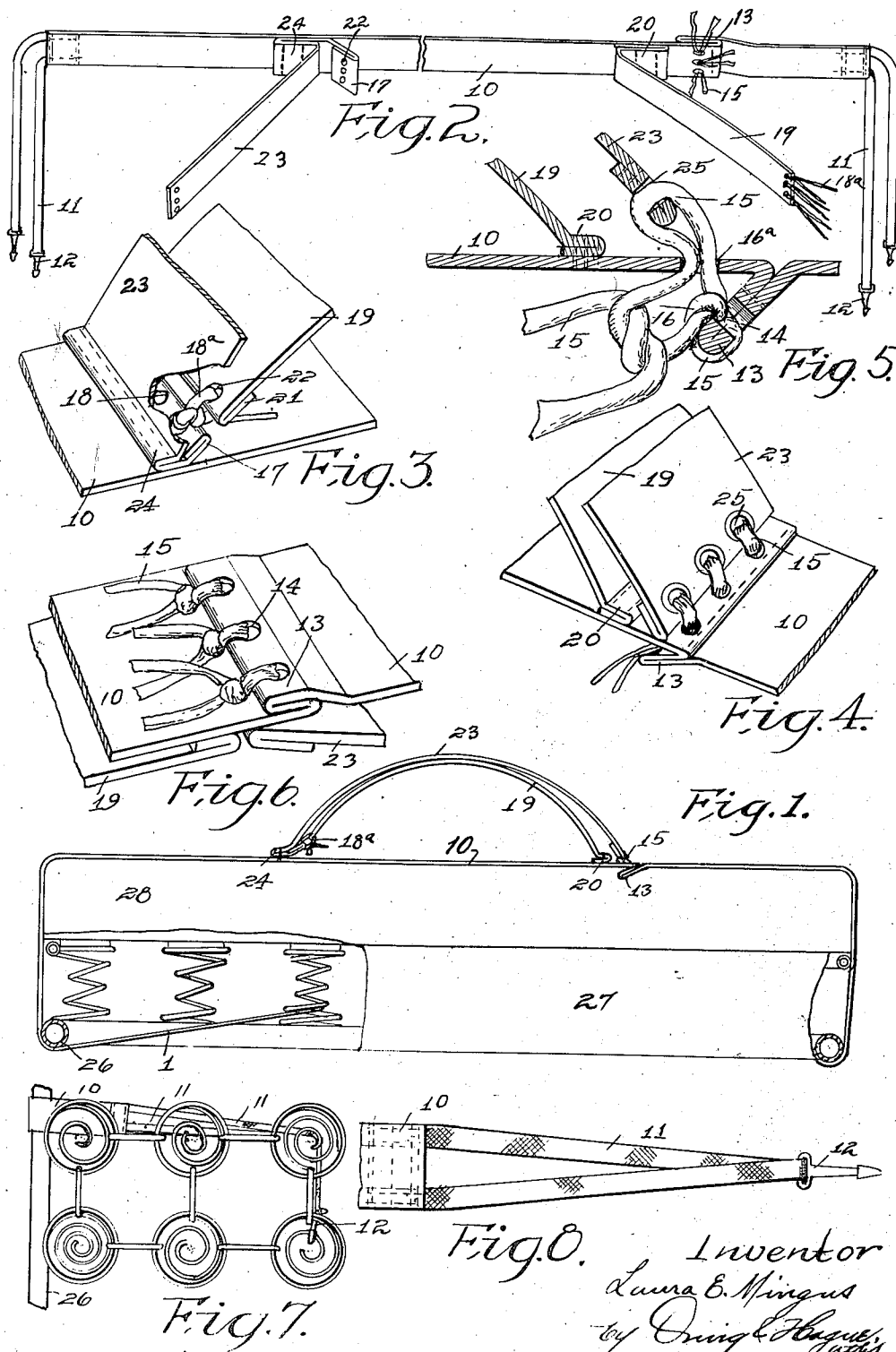
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L. E. MINGUS

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SAFETY BELT

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SAFETY BELT

Laura E. Mingus, Des Moines, Iowa

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3 Claims. (Cl. 128—134)

The object of my invention is to provide a safety belt of simple, durable and inexpensive construction, for use in hospitals for preventing certain classes of patients from falling out of hospital beds.

Heretofore, belts for this purpose have usually been provided with locks so that the patients cannot get out of bed until the lock is unlocked. I have found that many patients and their relatives object to such locks; and I have known of instances in which senile or delirious patients have resented such locked belts to the extent that it caused real injury to their mental condition.

One of the objects of my invention is to provide a safety belt without any locks and, hence, free from the said objection and which will securely hold a patient who is insane or delirious or otherwise rendered likely to attempt to get out of bed and fall to the floor, and which safety belt is provided with tapes which may be tightly tied and which are located in such portions of the belt where they cannot be seen by the patient and are not readily accessible to the patient's fingers, and which, therefore, the patient cannot easily or quickly untie, but which may be readily and easily moved by a nurse to position where they may be seen and be readily accessible for untying, and further to provide a safety belt which may be quickly, securely and adjustably attached to a bed spring mattress in such manner as to be inaccessible to a patient and yet readily accessible to a nurse. Belts of this kind are at the present time more necessary than formerly because the modern hospitals are equipped with so-called hospital beds which are much higher and narrower than ordinary beds. A further object is to provide a safety belt of this class which may be laundered and kept sanitary by the usual hospital laundering processes.

In the accompanying drawing:

Figure 1 shows an end view of a hospital bed having my improved safety belt applied thereto, part of the spring mattress cover being broken away;

Figure 2 is a perspective view of the complete belt;

Figure 3 is a detail perspective view of a part of the main belt and one end of each of the other belt members adjacent thereto;

Figure 4 is a similar view showing the other ends of the belt members attached to the main belt member;

Figure 5 is an enlarged sectional view of a portion of the main belt illustrating the manner in

which one of the shorter belt members is attached to the main belt;

Figure 6 shows a perspective view of the part of the device shown in Fig. 4 in an inverted position;

5 Figure 7 shows an inverted plan view of a bed spring showing the manner in which the belt is attached thereto; and

Figure 8 shows a detail view of the strap and snap hook for attaching the belt to a bed spring.

10 The main belt member 10 is preferably of a length approximately the width of a bed upon which it is to be used, and relatively wide and preferably made of woven fabric, such as canvas. At each end there is a strap 11 sewed to the bed member 10 and extended a considerable distance beyond the belt member 10 and having a snap hook 12 attached to its outer end.

At a point adjacent the central portion of the belt member 10 a fold is formed which extends transversely of the belt member 10 and extends downwardly from the under side of the belt member 10, and its sides are sewed together, forming a relatively stiff transverse brace for the belt to keep it flat upon the bed. In this fold 13 I place 20 three eyelets 14, one near each side and one in the center, and in each eyelet I tie a tape 15 of soft flexible material, such as cotton cloth, by extending the tape through the eyelet and forming a knot 16 at its central portions, leaving both ends free. In the main belt member 10 adjacent the fold 13 is a series of eyelets 16a.

On the upper side of the belt member 10, spaced apart from the transverse center of the belt member 10 there is another transverse folded member 35 17 extended upwardly and sewn together in the same manner as the aforesaid fold, to serve as a reinforcing member to hold the belt flat. This fold 17 is also provided with three eyelets 18 similar to the eyelets 14.

40 The belt member 19 is formed of the same material and is of the same width as the belt member 10. At one of its ends is formed an overlapping transverse fold 20 which is sewed to the belt member 10, and at its other end there is an overlapping transverse fold 21, the sides of the fold being sewed together for stiffness and reinforcing purposes. In this fold 21 are three eyelets 22, positioned to align with the eyelets in the belt portion 10.

50 A third belt member 23 is provided which is similar to the belt member 19. At one end it is provided with a fold 24 which is sewed to the belt member 10 at the side of the center of the belt member 10 opposite from the side to which the

belt member 19 is sewed. This belt member 23 has three eyelets 25.

The portion of the bed shown comprises a bed frame 26, a spring mattress 27 and a mattress 28.

In practical use the nurse or operator first applies the belt to the bed. This is done by passing the straps at the ends of the belt downwardly at the sides of the bed, and below the bed frame, and then inwardly to the central portion of the spring mattress, then around or through a spring, and then in a direction lengthwise of the bed, and the snap hook is then applied to an accessible part of an adjacent spring. In this manner the nurse may make the belt relatively tight to limit the movement of a patient, or relatively loose to permit a patient to sit up. The patient is then placed on the belt with the belt members 19 and 23 turned outwardly as shown in Figure 2. Then the belt member 19 is extended across the patient's waist and one end of each of the tapes 18a is extended through an eyelet 22 in the belt member 19, and the ends of the tape are tied and firmly knotted together. Then the belt member 23 is turned over the belt member 19, then one end of each of the tapes 15 is extended through the adjacent eyelet 16a and in the belt member 10 and through an eyelet 25 in the belt member 23 and back through the same eyelets, and the end of each tape is tied and firmly knotted under the belt member 10.

In this manner the knotted tapes 15 are concealed from view by the patient because they are under the belt member 10 and are not readily accessible to the patient. Also the tapes 18a are concealed by the belt member 23 and are not readily accessible to the patient. The nurse, however, may have ready access to the tied tapes by first releasing one end of the belt member from the bed and turning it upwardly at the patient's side, then when the tapes 15 have been thus released, the belt member 23 may be turned over, thus making the remaining tapes visible and readily accessible.

My improved belt has a wide range of adjustability for patients of various sizes, and may be adjusted tightly enough to limit turning movement and prevent sitting up movements of a patient. Or, it may be adjusted loosely enough to permit both turning and sitting up movements, while at the same time preventing the patient from falling out of bed.

For laundering purposes the tapes are removed from the belt, so that they may be thoroughly washed and sterilized, and since these tapes are preferably of thin flexible material so that they

may be tied in hard knots, they must be frequently renewed and, hence, are made easily detachable and replaceable.

I claim as my invention:

1. A safety belt for holding patients in bed, comprising a main belt member, means at each end for detachably securing it to the under side of a bed, a second belt member secured at one end to the main belt member, a third belt member in position overlapping the second belt member and secured to the main belt member at the end opposite from the secured end of the second belt member, and flexible tapes for tying the free ends of said second and third belt members to the main belt member.

2. A safety belt for holding patients in bed, comprising a main belt member, means at each end for detachably securing it to the under side of a bed, a transversely extended fold on the under side of the main belt member, having a series of eyelets, the main belt member adjacent said fold having a like series of eyelets, flexible tapes extended through the eyelets in the fold and tied to the fold, a belt member secured at one end to the main belt member and having a similar series of eyelets at its other end, one end of each of said tapes being extended through an eyelet in the main belt member through an eyelet in the second belt member and back through the same eyelet in the main belt member and being tied to the other end of the tape on the under side of the belt.

3. A safety belt for holding patients in bed, comprising a main belt member, means at each end for detachably securing it to the under side of a bed, a transversely extended fold on the under side of the main belt member, having a series of eyelets, the main belt member adjacent said fold having a like series of eyelets, flexible tapes extended through the eyelets in the fold and tied to the fold, a belt member secured at one end to the main belt member and having a similar series of eyelets at its other end, one end of each of said tapes being extended through an eyelet in the main belt member through an eyelet in the second belt member and back through the same eyelet in the main belt member and being tied to the other end of the tape on the under side of the belt, and another belt member between said belt members secured at one end to the main belt member and detachably secured by flexible tapes to the main belt member at its end opposite from said eyelets in the main belt member.

LAURA E. MINGUS.