No. 826,648.

PATENTED JULY 24, 1906.

W. CHALLENGER.

RESTRAINING DEVICE.

APPLICATION FILED FEB. 6, 1906.

Fig. 1.

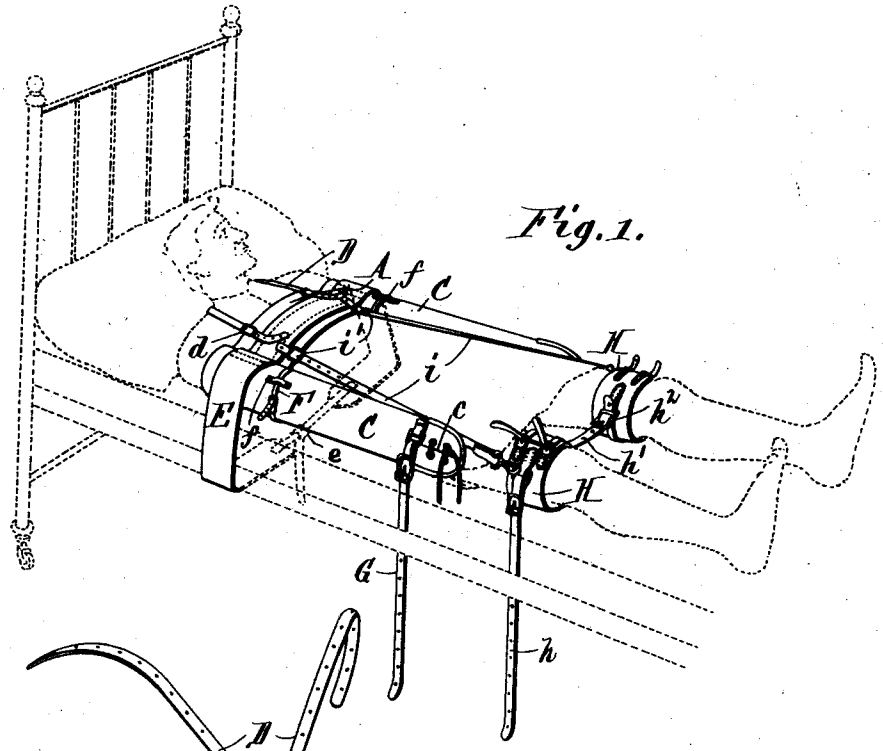
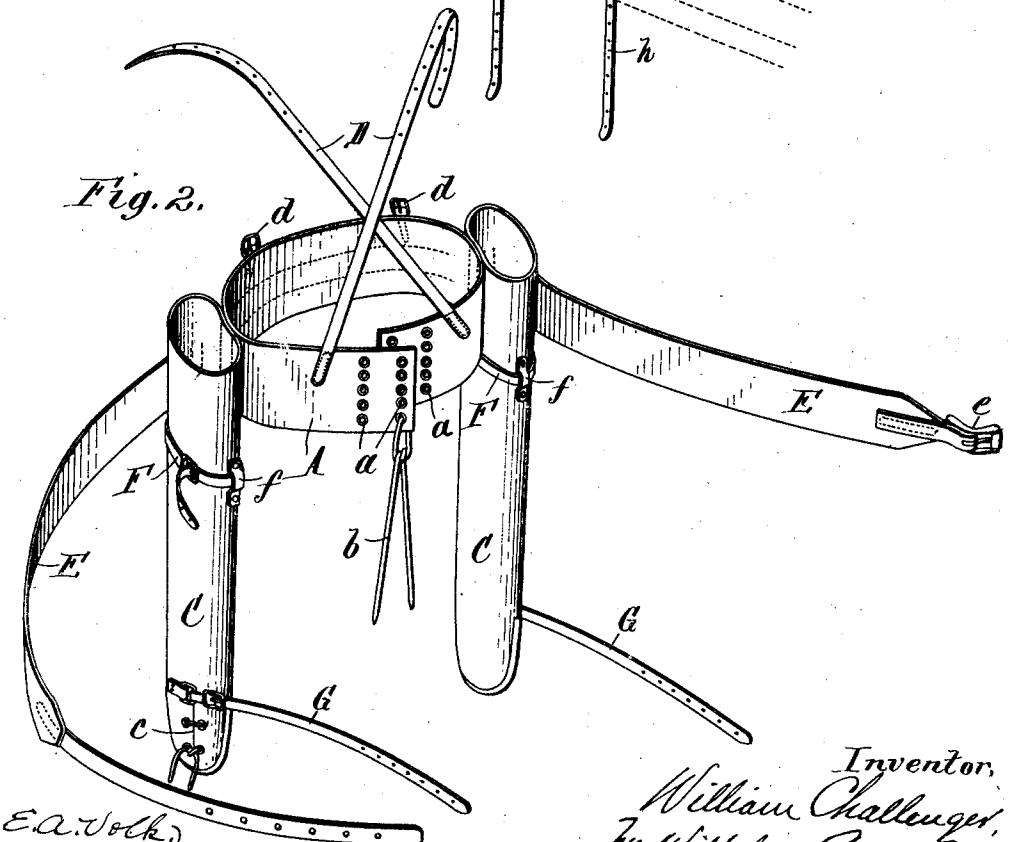


Fig. 2.



Witnesses,
E. A. Volk.
A. L. McGee.

Inventor,
William Challenger,
by Wilkes, Parker & Hard
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM CHALLENGER, OF NIAGARA FALLS, NEW YORK, ASSIGNOR OF ONE-HALF TO JAMES FORSYTH, OF NIAGARA FALLS, NEW YORK.

RESTRAINING DEVICE.

No. 826,648. Specification of Letters Patent. Patented July 24, 1906.

Application filed February 6, 1906. Serial No. 299,836.

To all whom it may concern:

Be it known that I, WILLIAM CHALLENGER, a citizen of the United States, residing at Niagara Falls, in the county of Niagara and State of New York, have invented a new and useful Improvement in Restraining Devices, of which the following is a specification.

This invention relates to restraining devices of that sort employed principally in hospitals and asylums for forcibly holding in their beds patients who are temporarily or permanently demented, so as to prevent them from doing violence to themselves or others.

Persons suffering from some diseases—such, for example, as fevers—often become temporarily demented and violent, and it is necessary to fasten them in bed, so that they cannot harm themselves or others. At the same time it is desirable for the comfort of the patients to allow them all the freedom of movement that is compatible with safety, and not burden them with heavy and cumbersome fastenings which would tire and heat or excite the patients.

Restraining-sheets are often used for securing the patient in bed. These sheets are made of canvas or like strong material and practically cover the entire bed, being fastened to rails and end frames thereof by straps or other securing devices. The restraining-sheet is far from satisfactory. It is very heavy and heating and a great nuisance to the attendants because it has to be unfastened whenever it is necessary to change the bedclothing or bathe or otherwise treat or examine the body of the patient, and especially in the case of fever it is necessary to bathe the patients at frequent intervals. Furthermore, the restraining-sheet does not afford complete safety, for it does not hold the arms and hands so that a strong and violent patient cannot injure himself or others. Other devices have been suggested which only cover a portion of the patient and are in this respect advantageous over the restraining-sheet; but these are generally unsafe, as they fail to pinion the arms and hands of the patient in such manner as to prevent him from unfastening the device, or they at least give him such freedom as to enable him to injure himself, and this is often the result. For example, it frequently happens that a violent patient having the freedom of his hands and arms will tear the bedclothing and disarrange bandages or even tear his throat and hair.

The primary object of this invention is to provide a restraining device for the purpose stated which can be worn without discomfort and fatigue, but is capable of being quickly and easily applied and fastened and of securing the patient beyond the possibility of escape or injury to himself or others, and which at the same time does not cover any considerable portion of the body and can be adjusted to allow more or less freedom of movement of body and limb.

In the accompanying drawings, Figure 1 is a perspective view of a restraining device embodying the invention, showing the same applied to a person on a bed or cot. Fig. 2 is a perspective view of the device removed, the leg-bands being detached.

Like letters of reference refer to like parts in both figures.

The device comprises, essentially, a body band or belt which is secured about the body beneath the arms of the wearer, sleeves or arm-holders which are attached to the opposite sides of the belt and are adapted to receive and hold the arms and hands, securing straps or means attached to belt or sleeves in such manner that when fastened to the bed they will hold the sleeves and pinion the upper arms at the sides, and means for retaining the device in proper position on the wearer. The device thus constructed is sufficient in the ordinary cases and leaves the lower limbs free and also allows some movement of the forearms. In addition to these parts the device is preferably provided with means for preventing the withdrawal of the arms from the sleeves and for securing the lower limbs and forearms; but these devices while sometimes necessary in extreme cases are not ordinarily needed and are not used.

A represents the body band or belt, which is made of some strong flexible material—such, for instance, as duck or canvas—which can be lined with soft material or padded to make it more comfortable. The belt is worn around the chest beneath the armpits and is provided with any suitable fastening means, such as eyelets *a*, in the ends of the belt, adapted to be joined at the back of the wearer by a lace *b*. A double row of eyelets in each end of the belt enables the necessary adjustments of the same to fit different wearers.

C represents the sleeves or arm-holders, which are made of strong flexible material, such as used for the belt. The sleeves are preferably in the nature of long narrow bags having open upper ends and closed lower ends and they are securely attached by sewing or otherwise to the opposite sides of the belt in position to receive the arms of the wearer. The sleeves are long enough to cover the hands when the arms are extended at the sides and are provided at their lower ends with hand-holes or slits *c*, through which an attendant can reach the hands and forearms of the wearer without removing the device when this is necessary for any reason—as, for instance, when it is desired to feel the patient's pulse.

D represents suspenders or shoulder-straps which are attached to the back or ends of the belt and are adapted to be crossed at the back and passed over the shoulders and fastened to the front portion of the belt, as by buckles *d*, much in the same manner as ordinary suspenders are adjusted. The suspenders hold the device in proper position on the wearer and leave the throat and chest well exposed, so as not to bear thereon or interfere with bathing the throat, shoulders, and upper portion of the chest.

The securing means preferably employed in connection with the belt consist of a strap E, securely attached in any suitable manner to the front of the belt with its opposite ends extending from opposite sides thereof over the sleeves or arm-holders C, to which the strap is also preferably attached, in such position that when fastened to the bed-frame they will bear down on and pinion the upper arms of the wearer, while leaving the lower arms free for movement from the elbows. The securing-strap shown has a buckle *e* at one end for fastening its ends together under the bed-frame, as shown in Fig. 1; but any other suitable securing means attached so as to hold down the sleeves when fastened to the bed could be employed.

When the device as thus far described is adjusted and secured, as stated, and as indicated in Fig. 1, the wearer will be restrained from lifting the body in bed or getting out of the bed, and while he has considerable freedom of movement of the body and lower limbs and also of the forearms, yet his upper arms are pinioned and he cannot free himself. Although the forearms are not secured, the hands are covered in the sleeves and cannot be used in a harmful manner. The wearer is thus effectually restrained; but the device is not so uncomfortable as to fatigue or unreasonably irritate him, and most of the person is exposed, thus facilitating examination and treatment. As the securing-strap E is attached to the sleeves, the arms are firmly held down with but slight pressure of the belt on the breast, which is desirable especially when used on women. The device thus used and without additional securing means is ample for the complete control of the ordinary run of cases; but as a safeguard when used with unusually strong or tricky patients the devices now to be described can be employed.

F represents arm-straps which encircle the sleeves or arm-holders C at points above the elbows of the wearer and have buckles for tightening them about the arms. These straps are held in place by suitable loops *f*, attached to the sleeves. By tightening these straps it is possible to prevent the arms from being drawn out of the sleeves or even moved lengthwise therein to any considerable extent. Straps G are also attached to the lower ends of the sleeves or arm-holders and are adapted to be fastened to the side rails of the bedstead to hold the forearms down, when this is necessary. Straps with buckles are shown for both securing the arms in the sleeves and securing the lower ends of the sleeves to the bed; but any other suitable securing devices could be used.

When it is necessary to pinion the legs, this is done by leg-bands H, which are buckled or otherwise secured around the legs and are provided with straps or other fastenings *h* for attachment to the bedstead. The leg-bands are preferably adjustably connected together by a cross-strap *h'* and buckle h^2, and they are removably and adjustably attached to the body-band—for instance, by straps *i*, secured to the leg-bands and buckles *i'*, secured to the belt. The attaching-straps prevent the leg-bands from slipping down out of place. When not needed, the leg-bands can be removed and the attaching-straps therefor unfastened from the belt.

I claim as my invention—

1. In a restraining device, the combination of a belt provided with means for securing it around the body beneath the arms, flexible sleeves attached to said belt having open upper ends and adapted to receive the arms, means for closing the lower ends of said sleeves, and means attached to said device and adapted to be secured to an object for restraining the person wearing the device, substantially as set forth.

2. In a restraining device, the combination of a belt provided with means for securing it around the body beneath the arms, flexible sleeves attached to said belt and adapted to receive the arms and provided at their lower ends with openings and closing means therefor, and securing means extending from the upper end portions of said sleeves and adapted to be secured to an object to pinion the arms in said sleeves, substantially as set forth.

3. In a restraining device, the combination of a belt provided with means for securing it around the body beneath the arms, flexible sleeves attached to said belt and adapted to receive the arms, and securing means at-

tached to said belt and extending therefrom over said sleeves and adapted to be secured to an object to pinion the arms, substantially as set forth.

4. In a restraining device, the combination of a belt provided with means for securing it around the body beneath the arms, flexible sleeves attached to said belt and adapted to receive the arms, securing means extending from said sleeves and adapted to be secured to an object to pinion the arms in said sleeves, and straps which are secured to the back and front portions of said belt and pass over the shoulders, substantially as set forth.

5. In a restraining device, the combination of a belt provided with means for securing it around the body beneath the arms, flexible sleeves attached to said belt and adapted to receive the arms, securing means extending from said sleeves and adapted to be secured to an object to pinion the arms in said sleeves, and arm-straps encircling said sleeves and adapted to be tightened to prevent the withdrawal of the arms, substantially as set forth.

6. In a restraining device, the combination of a belt provided with means for securing it around the body beneath the arms, flexible sleeves attached to said belt and adapted to receive the arms, securing means extending from said sleeves and adapted to be secured to an object to pinion the arms in said sleeves, and means attached to the lower ends of said sleeves for fastening them to an object, substantially as set forth.

7. In a restraining device, the combination of a belt provided with means for securing it around the body beneath the arms, flexible sleeves attached to said belt and adapted to receive the arms, securing means extending from said sleeves and adapted to be secured to an object to pinion the arms in said sleeves, leg-bands adapted to be secured about the legs and having means for securing them to an object, and connections from said leg-bands to said belt, substantially as set forth.

8. In a restraining device, the combination of a belt provided with means for securing it around the body beneath the arms, flexible sleeves attached to said belt having lower ends provided with openings and means for closing the same, a securing-strap or the like attached to said belt and extending therefrom over said sleeves and adapted to be secured to an object, suspenders attached to said belt, and straps or the like attached to the lower ends of said sleeves for securing them to an object, substantially as set forth.

Witness my hand this 2d day of February, 1906.

WILLIAM CHALLENGER.

Witnesses:
A. L. McGEE,
C. W. PARKER.