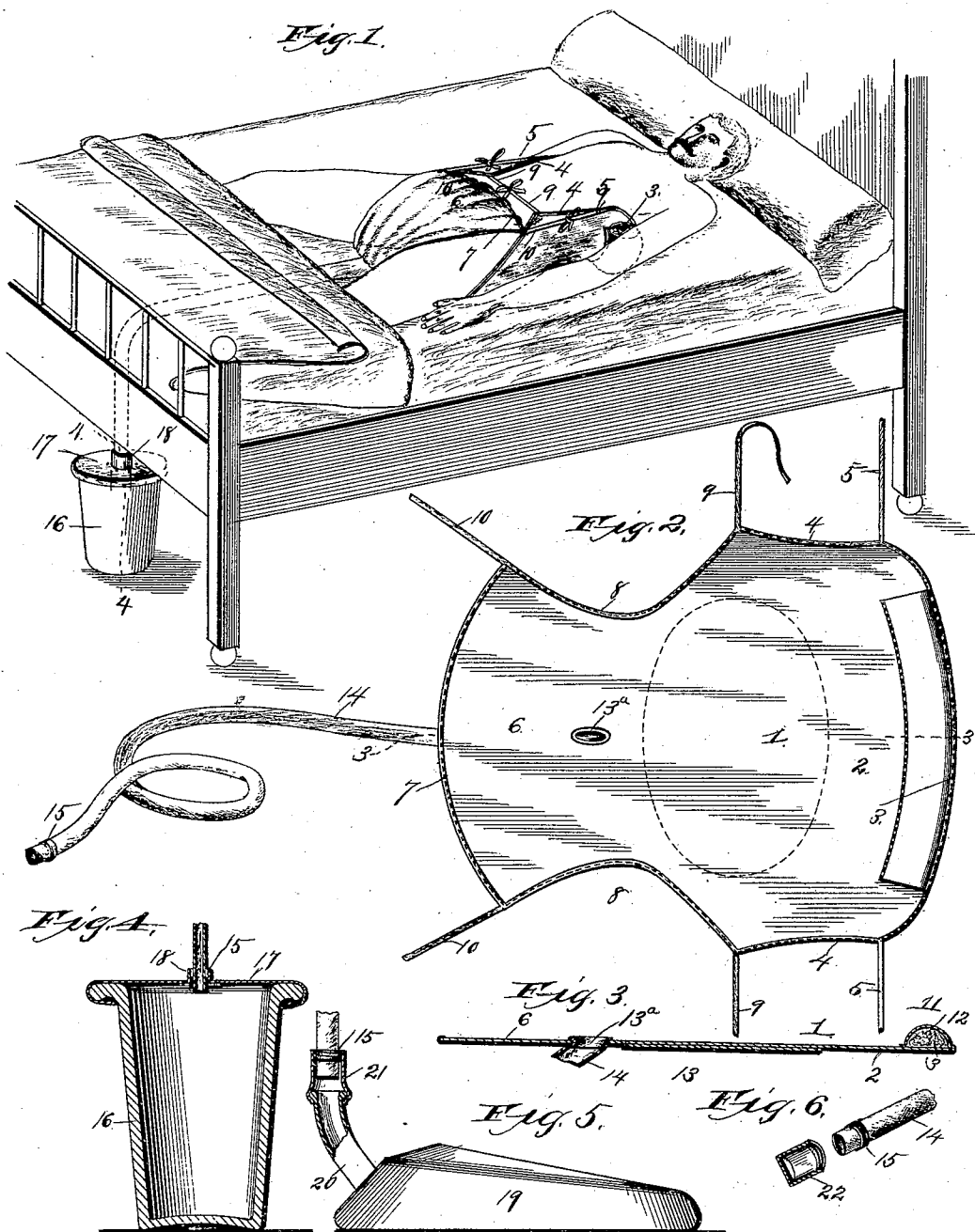


(No Model.)

J. P. DUVAL.
BED PROTECTOR.

No. 473,065.

Patented Apr. 19, 1892.



Witnesses,
Geo. Thorpe
John L. Condon

Inventor,
Jennie P. Duval,
By *Higdon & Higdon*
Attorneys.

UNITED STATES PATENT OFFICE.

JENNIE P. DUVAL, OF RICHMOND, MISSOURI.

BED-PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 473,065, dated April 19, 1892.

Application filed October 22, 1891. Serial No. 409,520. (No model.)

To all whom it may concern:

Be it known that I, JENNIE P. DUVAL, of Richmond, Ray county, Missouri, have invented certain new and useful Improvements in Bed-Protectors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to appliances for receiving the excreta of bed-ridden persons; and its objects are to produce means which shall be simple and inexpensive in construction and capable of easy application to and removal from the person of the user, and which shall also produce no inconvenience to the user, and which, furthermore, shall receive and deliver the excreta to any suitable receptacle without danger of soiling the bed-clothing. Furthermore, to produce appliances which shall, in addition to the above-stated functions, prevent the escape of odor during the use of the same.

To the above purposes my invention consists in certain and peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a bed with a person reclining thereon and my improved appliances in operative position. Fig. 2 is a plan view of the bed-protector laid open. Fig. 3 is a longitudinal section of the same on the line 3 3 of Fig. 2. Fig. 4 is a transverse vertical section of the slop-jar or commode on the line 4 4 of Fig. 1. Fig. 5 is a view, partly in side elevation and partly in transverse vertical section, of a bed-pan with certain of my improved appliances. Fig. 6 is a detached view of certain details of construction hereinafter described.

In the said drawings, 1 designates a shield, which is preferably of rubber, but which may be of oiled silk or canvas or other fabric rendered impervious to moisture. The upper portion 2 of this shield is of such length and width as extend beneath the user's back and upward at its corners against the user's sides, as shown in Fig. 1, the upper margin 3 of this portion of the shield being preferably of

curved or segmental form, and connected to the slightly outwardly-extending end margins 4 of this part 2 of the shield. At the point of juncture of each end margin 4 with the margin 3 is secured a strip 5, of tape or other suitable material, for a purpose to be hereinafter explained. The lower part 6 of the shield is of less width than the upper part 2, and its lower edge or margin 7 is preferably of segmental or curved form, as shown. The side margins 8 of this portion 6 of the shield are preferably curved inwardly, as shown, and at the points of juncture of these margins 8 with the margins 4 are formed or suitably secured strips 9, as of tape or other suitable material. Similar strips 10 are formed or secured to the portion 6 of the shield at the points of juncture of the margins 8 with the lower or end margin 7 of the shield, and the purposes of these strips 9 and 10 will be hereinafter explained. The upper end of the shield is provided with an elongated pad or cushion 11, which is stuffed with curled hair or other similar material 12, and which extends along the margin 3 of the shield less than the length of the same. Upon the outer or under side of the shield at about the middle of the portion 2 thereof is stitched or otherwise secured a reinforce-piece 13, which is preferably of the same material as the shield itself, and which thus constitutes a double thickness of material at this point, for a purpose to be presently explained. At about the center of the lower portion 6 of the shield is formed an opening in which is placed a ring 13^a, of hard rubber or other suitable material. This ring 13^a is surrounded by the upper end of a long flexible tube 14, which is constructed of rubber or of other suitable material which is impervious to water. The opposite or outer end of this tube 14 is provided with an externally screw-threaded ring or band 15 of hard rubber or other suitable material. This tube 14 is designed to be connected to a bed-pan, slop-jar, or other receptacle suitable for receiving the excreta, and in Fig. 1 said tube is shown as connected to a slop-jar or commode 16, of the usual or any preferred type. In this instance a cover 17 (see also Fig. 4) is provided for the top of the jar or commode 16, the said cover being preferably of india-rubber and having its margin turned downward over the

rim of the jar or commode and retained in position by the elasticity of the cover. It is to be understood, however, that the cover 17 may be of any material which is impervious 5 to liquid and which will prevent the escape of odor from the receptacle 16. At its center this cover is formed with an opening in which is secured an internally screw-threaded ring or socket 18, either of hard rubber or of 10 metal, and when the tube 14 is to be connected to the cover 17 the ring 15 is screwed into the ring or socket 18 and a perfectly water and odor tight joint is formed.

In Fig. 5, 19 designates a bed-pan, of the 15 usual or any preferred form and material, and 20 designates the spout of the same. When the tube 14 is to be connected to this pan, a short tubular section 21, preferably of elastic rubber, is used. One end of this tubular section 21 is passed around the ring 15 20 and the opposite end is passed over the outer end of the mouth or spout 20, a water and odor tight joint thus being also formed between the pan and the tube 14. When the 25 tube is disconnected from the receptacles described, it is desirable to tightly close its outer end, and this is accomplished by means of a cap 22, of hard rubber or other suitable material. The outer end of this cap is, of 30 course, tightly closed, while its inner end is internally screw-threaded. When the tube is disconnected, the cap is to be screwed upon the ring 15, and thus tightly closes the outer 35 end of the tube. In this way no leakage from the tube 14 can occur and the bed-clothing will not be soiled if the tube be laid upon the bed while the patient is being moved.

The manner of applying the shield to the 40 patient's body will be understood by reference to Fig. 1. The upper part 2 of the shield is laid beneath the patient, so that the pad or cushion 11 shall come beneath the small of the back and thus support that part of the 45 body. The reinforced portion 13 comes immediately beneath the patient's rump, and thus prevents any soiling of the bed-clothing by saturation of the shield. The two strips

9 are laid across the patient's abdomen and are tied together so as to retain this part of the shield in position. The lower part of the 50 shield is turned up between the patient's limbs so as to fit closely between the same, and is also laid upon the patient's abdomen. This portion 6 is retained in position by tying the strips 10 to the strips 5, as shown. It 55 will thus be seen that the appliances are simple and durable in construction and can be readily used without inconvenience to the patient, and can also be readily applied and removed. 60

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

A bed-protector comprising a body portion or shield having an outwardly-curved upper 65 margin and outwardly-extending upper side margins, a lower narrower extension formed in one piece with the body portion of the protector and united thereto marginally by oppositely-disposed concaved margins common 70 both to the body portion and the extension, an outwardly-curved lower margin for the extension, a segmental cushion secured to the under side of the body portion contiguous to its upper margin, a reinforce secured to the 75 middle of the shield, opposite pairs of flexible strips attached to the points of union of the upper and upper side margins, also to the points of union of the outwardly-extending margins with the concave margins, and, furthermore, to the points of union of the lower 80 margin with the concave margins, an opening formed through the middle of the extension, a rigid ring inserted into said opening, a flexible tube connected to said opening, a ring or 85 band secured to the free end of the tube, and a rigid cap removably connected to said ring or band, all substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JENNIE P. DUVAL.

Witnesses:

JAS. W. SMITH,

C. T. GARNER, Jr.