No. 747,525. PATENTED DEC. 22, 1903.

B. R. WILLIS.

SURGICAL APPARATUS.

APPLICATION FILED AUG. 22, 1903.

NO MODEL.

Fig. 1.

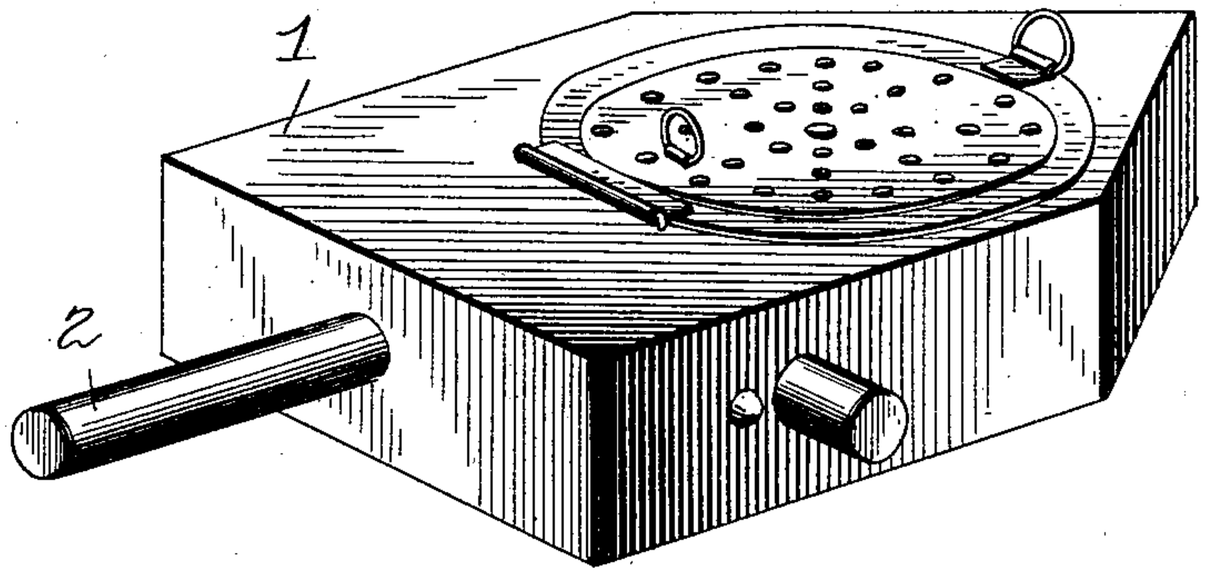

Fig. 2.

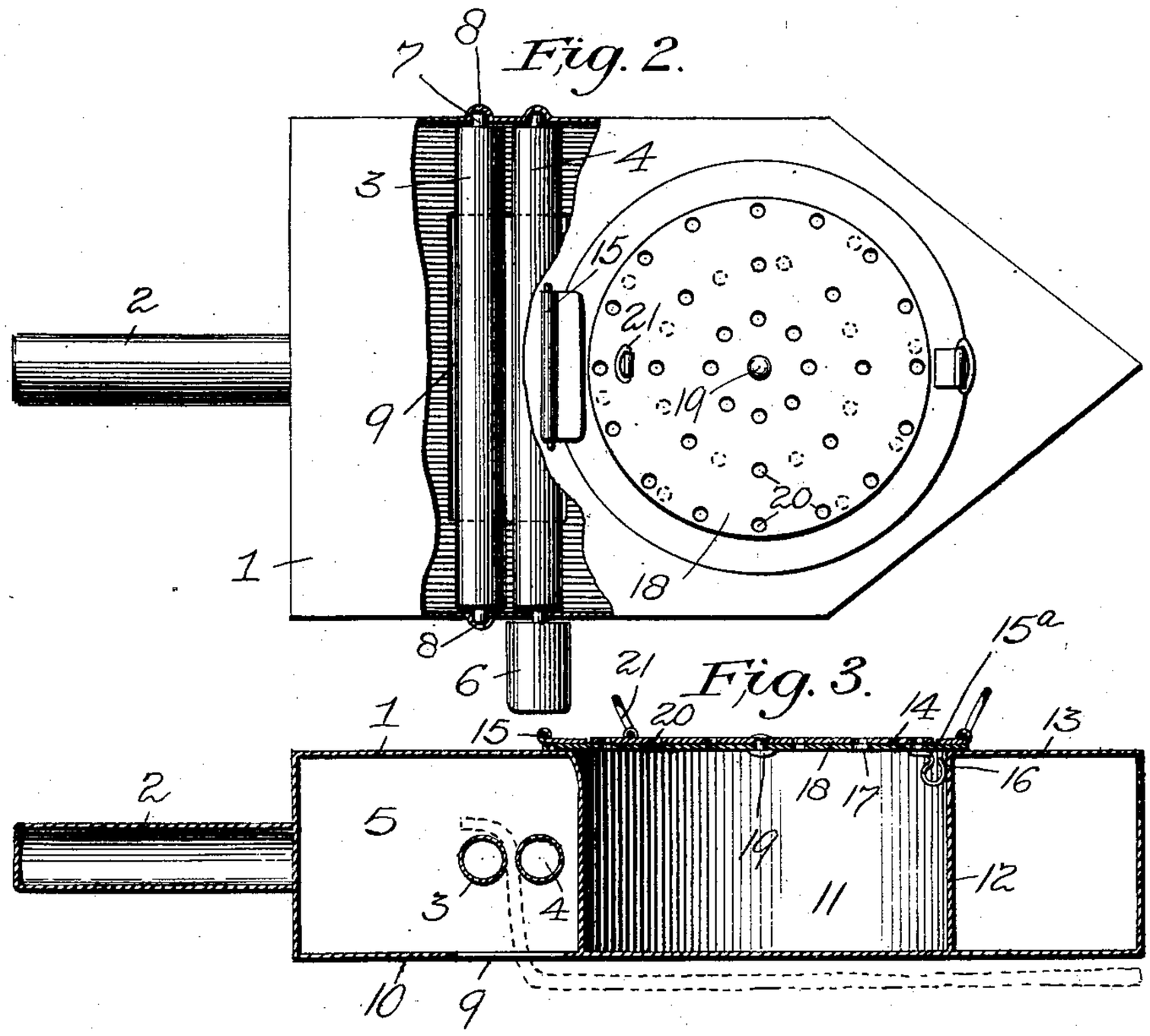

Fig. 3.

Witnesses:
A. Middleton
Edward Sarton

Inventor:
Belle Rector Willis.
by Ellis Spear & Company
Atty's

No. 747,525. Patented December 22, 1903.

UNITED STATES PATENT OFFICE.

BELLE RECTOR WILLIS, OF ST. JOSEPH, MISSOURI.

SURGICAL APPARATUS.

SPECIFICATION forming part of Letters Patent No. 747,525, dated December 22, 1903.

Application filed August 22, 1903. Serial No. 170,499. (No model.)

To all whom it may concern:

Be it known that I, BELLE RECTOR WILLIS, a citizen of the United States, residing at St. Joseph, Buchanan county, Missouri, have invented certain new and useful Improvements in Surgical Apparatus, of which the following is a specification.

My invention relates to means for treating wounds and sores, and it comprises devices for holding a swab composed of cloth, antiseptic cotton, or the like, such devices enabling the nurse or attendant to clean the wound or affected part without requiring her to apply the cleaning solution by hand and enabling her to avoid contact of the cleaning cloth or cotton with her fingers, thus reducing the liability to infection.

The invention also includes means whereby the wound or affected part may be treated or supplied with powder or other material; and the invention consists in the features and combination and arrangement of parts hereinafter described, and particularly pointed out in the claims.

For a clear understanding of my invention reference is had to the accompanying drawings, which represent, in—

Figure 1, a perspective view of the appliance; Fig. 2, a plan view with a part of the casing broken away to show the interior devices, and Fig. 3 represents a longitudinal section of the appliance.

In treating wounds and sores and other affections of the body it is necessary to apply antiseptic or other solutions, and this is usually done by means of a cotton cloth or a piece of raw cotton, and when this material is held in the fingers there is more or less liability of the nurse or attendant becoming infected, and to avoid this I provide the appliance shown in the drawings referred to above, which consists of a casing 1, formed of any suitable material, such as aluminium, the said casing having a handle 2, by which the operator may manipulate it. Within the casing I arrange a pair of rollers 3 4, extending transversely of a chamber 5, the said rollers being journaled in the sides of the casing, and one of them (marked 4) being provided with a knob or handle 6, arranged on the outer side of the casing. I prefer to journal the rollers by having their pintles 7 seated in bearing-sockets 8, formed by pressing the metal of the casing outwardly or by forming bearing-caps secured to the metal casing in any suitable way.

The rollers 3 4 are arranged parallel with each other and close together, and they are located over an opening 9, formed in the bottom 10 of the casing. In front of the chamber 5 a second chamber 11 is arranged with the casing, said chamber being preferably of circular form and having its wall 12 extending from the top 13 of the casing to the bottom. This latter chamber 11 is closed by a cover 14, hinged to the top of the casing at 15 and held in closed position by a spring-catch 15^a on the under side of the cover engaging the edge at 16. This cover is perforated, as shown at 17, and it has a circular plate 18 on its upper side, secured thereto by a central rivet 19, adapted to allow the rotation of the said plate on the cover. The rotary plate is perforated, as at 20, to correspond with the perforations in the cover, and it is provided with a finger-piece or handle 21, by which it may be turned to make the openings in said plate aline or disaline with those in the cover.

It will be seen that the opening 9 to the chamber 5 is arranged in the lower wall or bottom of the casing, while the opening to the chamber 11 is arranged at the top of the casing. In the use of the appliance the cleaning cloth or piece of cotton is inserted through the opening 9 in the bottom of the casing into the bight of the rollers 3 4, and upon turning the roller 4 by means of the handle 6 the cleaning cloth or cotton will be rolled into the casing 5 and securely gripped by the rollers 3 4.

The cotton or cloth is left projecting from opening 9, and by taking hold of the handle 2 the nurse or attendant can dip the cleaning cloth or cotton into the antiseptic or other solution, then apply the said cotton or cloth in its saturated condition to the wound or affected part to be treated, and then when it is completed the infected cleaning cloth or cotton may be discharged from the appliance by the nurse retaining hold of the handle 2 and with the other hand turning the handle or knob 6 in a direction reverse to that formerly described, whereby the cleaning cloth or cotton will be rolled out from between the

rollers 3 4 and may be discharged into a suitable receptacle, and the whole operation may be carried on without necessitating the handling of the infected cleaning cloth or cotton in any way, for it will be seen that after the cleaning cloth or cotton is first inserted between the rollers the appliance may be manipulated and the cleaning cloth or cotton will be discharged without requiring the attendant to take hold hold of it with the fingers.

The receptacle 11 is intended to receive any suitable powder with which the wound is to be treated, and by simply turning the rotary perforated plate 18 and inverting the appliance the powder may be shaken out and distributed over the affected part. As before stated, the opening to the chamber 11 is on the upper side of the appliance opposite to that side upon which the opening 9 is located, and by reason of this the contents of the chamber 11 may be protected from damage by the solution being used, as it will be only necessary to immerse the appliance sufficiently to saturate the cotton or cloth, and the opening of the chamber 11 may at all times be kept above the surface of the solution. The cover, however, on chamber 11 is intended to fit tightly upon the casing and overlap the edge of the opening of the chamber 11, and this will afford protection against the inlet of any of the solution to the chamber 11 under ordinary circumstances.

The chamber 5, in which the cotton or cloth is rolled, is of sufficient capacity to contain the required amount of the said material and by unrolling the material from this compartment fresh portions thereof may be brought out for contact with the wound or affected part.

It will be noticed that the bottom 10 of the casing extends around all four sides of the opening 9, and the lower face of this bottom affords a bearing for the cleaning material to rest against when it is pressed upon the wound, or, in other words, the cleaning material may overlap and spread laterally beyond the edges of the opening 9 and get a bearing against the lower face of the bottom.

I claim as my invention—

1. In an appliance for treating wounds, sores and the like, a casing having an opening therein, a pair of rollers arranged adjacent to said opening to receive the cleaning material between them, said rollers being located within a chamber of the casing and a handle connected with the casing, substantially as described.

2. In combination with a casing having an opening therein with a bottom extending around the said opening and rollers within the casing arranged adjacent to said opening to receive the cleaning material between them and a handle on one side of the casing connected with one of the rollers for operating the same, substantially as described.

3. In combination in an appliance of the class described, a casing having an opening on its lower side, rollers within a chamber of the casing arranged adjacent to said opening, a second chamber within the casing having its opening arranged on the opposite side of the casing from the opening of the chamber first mentioned and a perforated cover for said opening, substantially as described.

4. In combination, the casing having two chambers therein, each chamber having an opening and the opening of one chamber being on the opposite side of the casing from the opening of the other chamber, a pair of rollers arranged adjacent to one of the openings, a perforated cover for the other opening, and a rotary perforated plate carried by the said cover, substantially as described.

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

BELLE RECTOR WILLIS.

Witnesses:

HENRY E. COOPER,

WALTER DONALDSON.