(No Model.)

A. POEHL.

ARTIFICIAL ANTISEPTIC SPONGE.

No. 471,343. Patented Mar. 22, 1892.

Fig. 1.

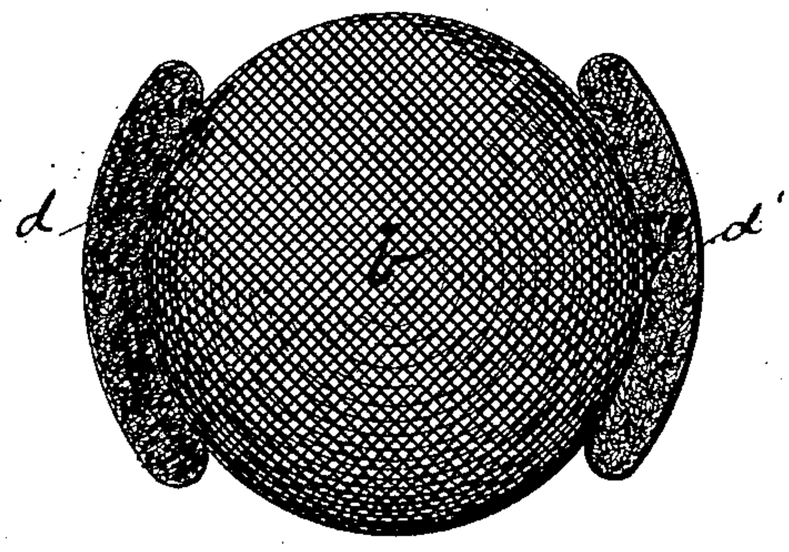
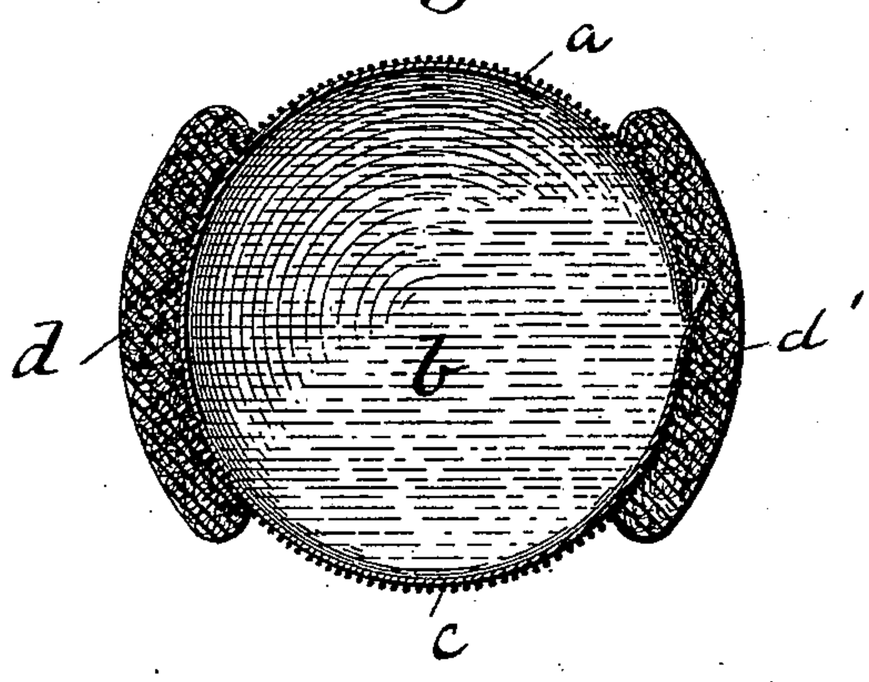


Fig. 2.



Witnesses:
J. B. McGirr.
C. B. Keyes.

Inventor:
Alexander Poehl,
by Richards & Co.
attys.

UNITED STATES PATENT OFFICE.

ALEXANDER POEHL, OF ST. PETERSBURG, RUSSIA.

ARTIFICIAL ANTISEPTIC SPONGE.

SPECIFICATION forming part of Letters Patent No. 471,343, dated March 22, 1892.

Application filed September 30, 1889. Serial No. 325,586. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER POEHL, a subject of the Emperor of Russia, residing at St. Petersburg, Russia, have invented a new and useful Artificial Antiseptic Sponge, of which the following is a full, clear, and exact description.

The object of this invention is an antiseptic sponge consisting of a caoutchouc bag or other vesicle having elastic walls—as, for instance, a sterilized bladder or a soft gelatine capsule—said bag or vesicle being filled with an antiseptic liquid and inclosed within an envelope of hygroscopic gauze or equivalent material.

In order to make my invention more clearly understood, I have shown in the accompanying drawings an illustration of the same.

Figure 1 is a view of a sponge or bandage embodying my invention, and Fig. 2 is a section of the same.

Referring to said drawings, *a* represents the bag; *b*, the antiseptic liquid; *c*, the gauze bandage, and *d d'* the end waddings. The bag or vesicle after having been filled with an antiseptic liquid is closed by a caoutchouc closer or by immersion in a solution of caoutchouc, or in a solution of gelatine, to which I add a certain quantity of chromate of potassium. The bag filled with antiseptic liquid is then enveloped or rolled in a bandage or ligature of soft and hygroscopic gauze and two pieces of hygroscopic wadding are arranged on the two uncovered and open sides of the bag. The whole is sewed or otherwise secured in a piece of hydroscopic gauze.

The following are the advantages of a sponge constituted as described.

First. The sponge makes an integral part of a wound-dressing outfit, such as is frequently sewed in the lining of the overcoat of the soldier in order to have at hand the most necessary ingredients for dressing a wound.

Second. By piercing the sponge with a needle—for instance, with a chirurgical needle, which belongs to the outfit—the antiseptic solution flows out of the receptacle and spreads over the gauze envelope and the wadding to a degree determined by the pressure on the sponge.

Third. At every outflow of the liquid the sponge obtains new antiseptic qualities, so that the formation of septic impurities in the sponge is impossible.

Fourth. The slow discharge of the liquid enables one to wash or to sterilize a large surface.

Fifth. When the sponge has been used in this capacity the exterior envelope of gauze is removed and a bandage or ligature is obtained soaked with the antiseptic solution and rolled, so that it can be applied immediately.

Sixth. If a sublimate solution is used the antiseptic quality of the solution with regard to the blood can be considerably increased by adding a small quantity of tartaric acid. (0.1 to 0.4 per cent.)

Seventh. In the actual wound-dressing outfits the sublimate substances lose their antiseptic property on account of the fact that the sublimate exposed to atmospheric influences is easily turned into insoluble combinations. This cannot occur in the use of my artificial sponge. The sublimate solution does not affect the walls of the caoutchouc bag.

Eighth. The artificial sponge is not affected by exterior influences—as, for instance, pressure and shaking. The receptacle for the liquid can only be broken by piercing the same with pointed or sharp objects.

Ninth. The importance of my sponge does not consist merely in its adaptation for the military infirmary, but it may also be successfully used in all cases requiring quick surgical help—as, for instance, in railway accidents.

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

The herein-described antiseptic sponge provided in its interior with an elastic receptacle for liquids, said receptacle being treated with chromate of potassium, hygroscopic wadding at the ends of said receptacle, and an enveloping bandage or ligature consisting of soft hygroscopic gauze, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALEXANDER POEHL.

Witnesses:

J. HIERLING,

N. TSCHEAALOFF.