No. 797,510. PATENTED AUG. 15, 1905.

C. FUHRHANS.

SURGICAL BANDAGE.

APPLICATION FILED FEB. 16, 1903.

Fig. 1

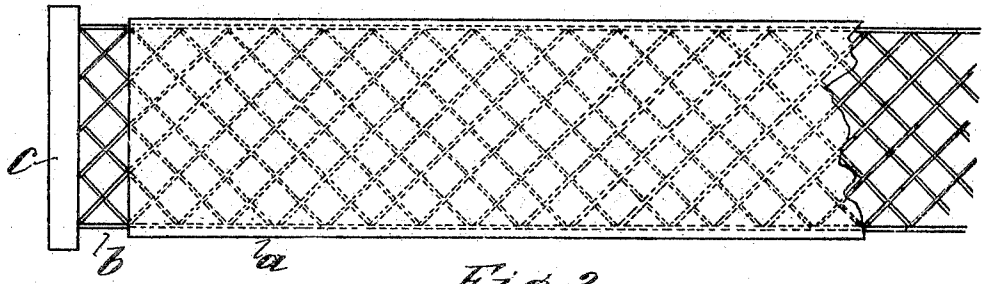


Fig. 2

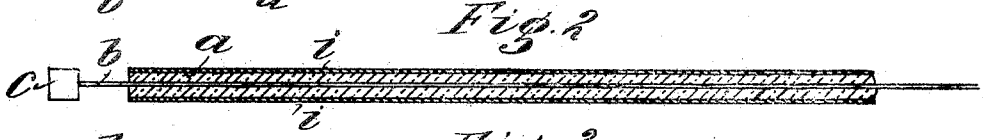
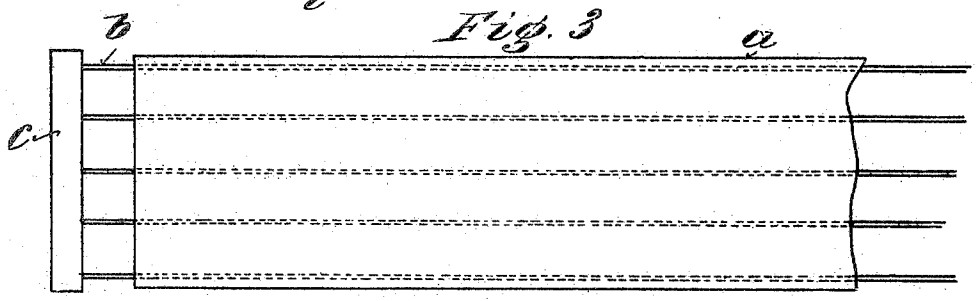


Fig. 3



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UNITED STATES PATENT OFFICE.

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SURGICAL BANDAGE.

No. 797,510. Specification of Letters Patent. Patented Aug. 15, 1905.

Application filed February 16, 1903. Serial No. 143,666.

To all whom it may concern:

Be it known that I, CARL FUHRHANS, a subject of the King of Bavaria, residing at Munich, Bavaria, Germany, have invented certain new and useful Improvements in Surgical Bandages; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to plaster-of-paris bandages used in surgical operations for the dressing of fractured limbs, the correction of malformations and the like; and it consists, essentially, in providing such bandages with wire or other strengthening-stays. The wire or other reinforcement may project at the ends of the bandage, and when it is required to remove the hardened bandage these wires or other stays may be grasped and will greatly facilitate the unwinding of the bandage.

In order to render the present specification easily intelligible, reference is had to the accompanying drawings, in which similar letters of reference denote similar parts throughout the several views.

Figure 1 is a plan of part of a bandage having a wire-netting reinforcement. Fig. 2 is a section taken through the same, and Fig. 3 is a plan of a modified form of the bandage.

The ordinary plaster-of-paris bandage *a*, which consists of a thin layer of plaster-of-paris located between two layers of tulle, gauze, or other suitable material, is provided with a reinforcement of wire-netting or of single wires, strings, or other stays of suitable strong material, as represented in Fig. 1 in the form of netting at *b* and in Fig. 3 in the form of longitudinal wires or strings. The end of the netting or of the strings preferably extends out of the bandage and may be provided with a handle, as at *c*. When the bandage is to be taken off, it may be easily and conveniently unwound by grasping the handle and tearing it off, as will be readily understood.

The reinforcement or stay used by me is distinct from the bandage itself and is not to be confused with bandages in which, as is well known, a fabric is frequently used as a base or container for a hardening material and sometimes quilted, as shown in Patent No. 283,478, or with structures in which rigid or resilient braces are used in connection with setting-bandages, as disclosed in Patents Nos. 216,680 and 221,568, or with flexible wire structures into which no hardening substance enters, such as shown in Patent No. 423,490, with all of which I am familiar and to which I make no claim. The essential feature of my invention, on the contrary, is a reinforced bandage which is strong and flexible as a whole, possessing plasticity when applied, and which thereafter sets in position and in which the stays and hardening material coöperate to secure a degree of rigidity and strength hitherto unattained.

While, preferably, I employ a container of fabric for the plaster-of-paris or other hardening substance, in some cases the hardening substance may have a holding material incorporated therewith to render the same tenacious and in others the nature of the hardening substance may cause it to be held by the inlaid netting alone.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A surgical bandage comprising a hardening substance provided with a netting of non-resilient material extending through the same.

2. A surgical bandage comprising a hardening substance provided with inlaid stays extending diagonally thereof and a holding material.

3. A surgical bandage comprising plaster-of-paris provided with inlaid stays extending diagonally thereof and a holding material.

4. A surgical bandage comprising plaster-of-paris provided with inlaid wire stays and a holding material.

5. A surgical bandage comprising plaster-of-paris provided with inlaid wire-netting.

6. A surgical bandage comprising a hardening substance provided with inlaid wire stays extending diagonally thereof and a holding material.

7. A surgical bandage comprising plaster-of-paris provided with inlaid wire-netting, the several wires extending diagonally thereof.

8. A surgical bandage comprising layers of fabric, and an interposed hardening substance, in combination with flexible wires embedded within said hardening substance.

9. A surgical bandage comprising layers of fabric, and interposed plaster-of-paris, in combination with wire-netting embedded within the plaster-of-paris and extending through said bandage.

10. A surgical bandage provided with inlaid stays extending beyond the ends thereof, and handles attached to the projecting stays.

11. A surgical bandage provided with inlaid

non-elastic stays extending beyond the ends thereof, and handles attached to the projecting stays.

12. A surgical bandage comprising a hardening substance provided with inlaid wire-netting extending beyond the end thereof, and handles attached to the projecting netting.

13. A surgical bandage comprising layers of fabric, and interposed plaster-of-paris, in combination with wire stays embedded in the plaster-of-paris and extending beyond the end of the bandage, and a handle attached to the projecting stays.

14. A surgical bandage comprising layers of fabric and interposed plaster-of-paris, in combination with wire-netting embedded in the plaster-of-paris and extending beyond the end of the bandage, the individual wires lying diagonally of the bandage, and a handle attached to the projecting netting.

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

CARL FUHRHANS.

Witnesses:

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WALTER E. BOWMAN.