C. WALDVOGEL.

SURGICAL INSTRUMENT.

APPLICATION FILED FEB. 12, 1910.

969,579. Patented Sept. 6, 1910.

Fig. 1.

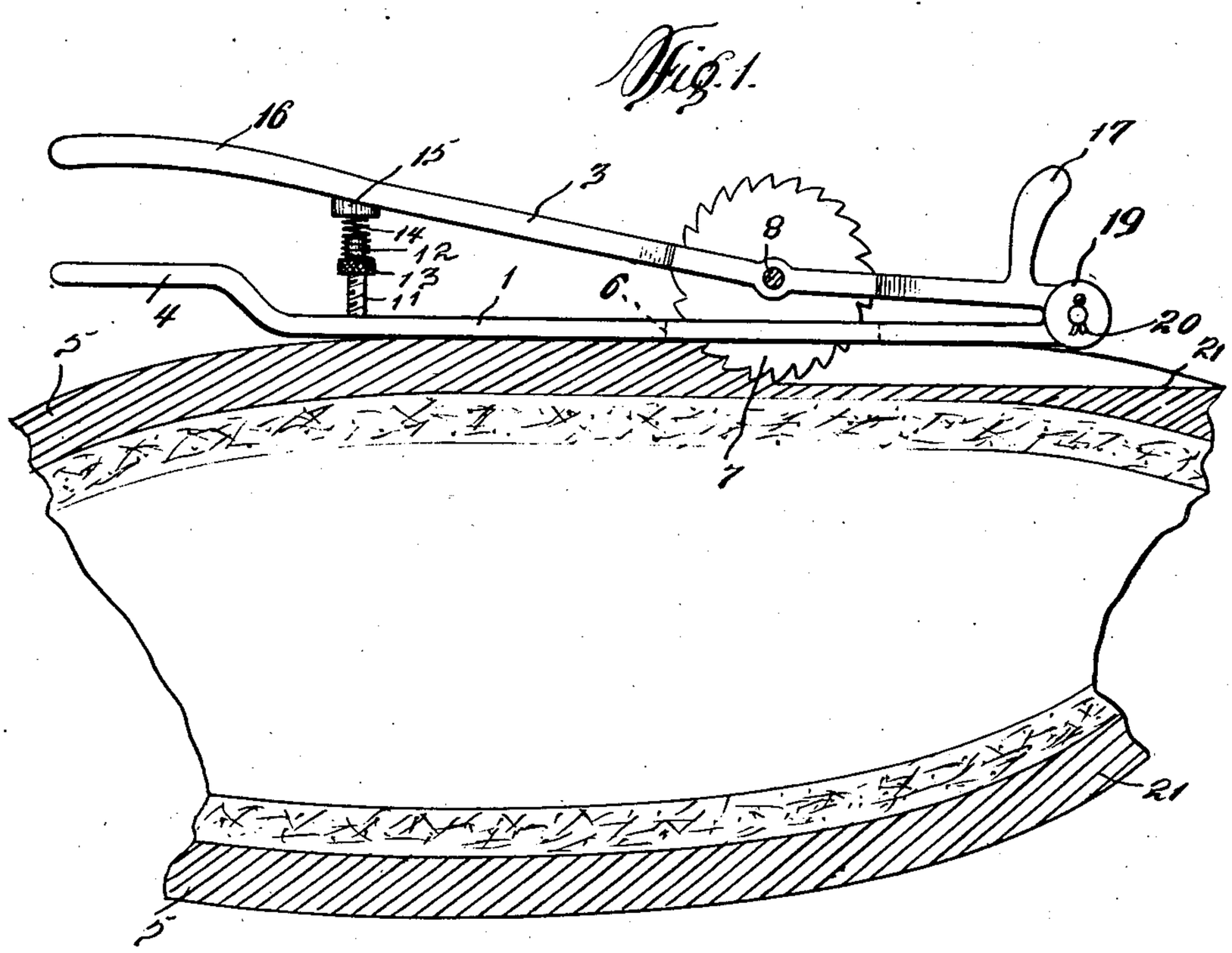


Fig. 2.

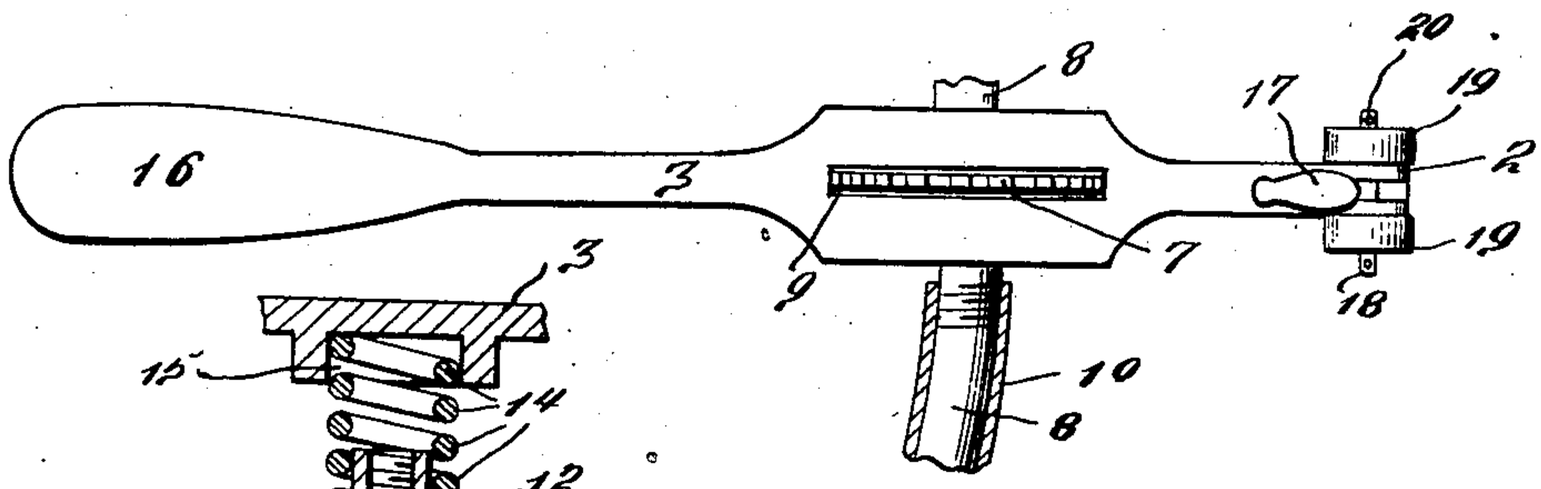
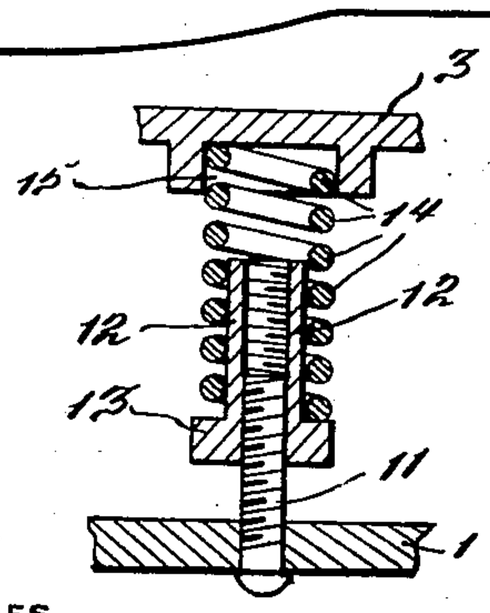


Fig. 3.



WITNESSES

David Turner

R. H. Butler

INVENTOR

C. WALDVOGEL

BY A. C. Edwards Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

CONSTANTIN WALDVOGEL, OF PITTSBURG, PENNSYLVANIA.

SURGICAL INSTRUMENT.

969,579. Specification of Letters Patent. Patented Sept. 6, 1910.

Application filed February 12, 1910. Serial No. 543,458.

To all whom it may concern:

Be it known that I, CONSTANTIN WALDVOGEL, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Surgical Instruments, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a surgical instrument, and the object of my invention is to provide a novel instrument for removing plaster paris bandages, splints, and molded forms from limbs or arms.

My invention aims to facilitate the operation of removing a plaster paris form from a leg or arm by providing a portable and automatically actuated saw that can be easily adjusted and moved over a plaster paris form to sever the same whereby it can be easily and safely removed, without injuring the limb or arm. To this end, I have constructed an instrument having an adjustable saw member that can be easily regulated whereby the rotary saw thereof will cut a desired depth in the plaster paris form, and by providing a form with two or three longitudinal kerfs, the form can be easily cracked and removed.

The instrument is constructed of comparatively few parts easily assembled, inexpensive to manufacture and highly efficient for the purposes for which they are intended.

The instrument will be hereinafter specifically described and claimed, and reference will now be had to the drawing forming a part of this specification, wherein there is illustrated a preferred embodiment of the invention, but it is to be understood that the structural elements thereof can be varied or changed without departing from the spirit and scope of the invention.

In the drawings: Figure 1 is a side elevation of the instrument showing the manner of using the same. Fig. 2 is a plan of the instrument, and Fig. 3 is an enlarged vertical cross sectional view of the instrument.

In the accompanying drawings the reference numeral 1 denotes a supporting member having the forward end thereof reduced to fit between the bifurcated end 2 of an adjustable member 3. The rear end of the member 1 is provided with a handle 4, said handle being bent out of alinement with the member 1, whereby it will be raised with respect to a form 5 with which the member 1 contacts. The member 1 intermediate the ends thereof is provided with a longitudinal slot 6 adapted to provide clearance for a rotary saw 7 mounted upon a spindle 8 journaled in the member 3, the saw 7 extending upwardly through a longitudinal slot 9 provided therefor in said member. The spindle 8 intersects the slot 9 and adapted to be connected to the outer end of said spindle is a flexible shaft 10. The shaft 10 is adapted to be driven by a small motor or suitable source of power.

The member 1 adjacent to the handle 4 is provided with a fixed threaded stem 11 and screwed upon said stem is a sleeve 12 having the lower end thereof provided with a knurled collar 13. Fitted over the sleeve 12 and adapted to rest upon the collar 13 is a coiled spring 14 having the upper end thereof fitted in a socket 15 provided therefor on the under face of the member 3. The rear end of the member 3 is provided with a handle 16, while the forward end thereof is provided with another handle 17.

Upon the ends of the pivot pin 18 employed for connecting the forward ends of the members 1 and 3 are revoluble wheels or rollers 19 retained upon the pin 18 by cotter pins 20.

By gripping the handles 4 and 16 in one hand and the handle 17 in the other hand, the instrument can be moved over the form 5 to provide a kerf 21, and after a kerf has been cut upon one side of the form 5, the opposite side thereof can be cut, whereby the form can be removed in two pieces.

It is through the medium of the sleeve 12 and the collar 13 that the member 3 is adjusted relatively to the member 1, whereby the depth of a kerf can be determined prior to placing the instrument in operation, thereby avoiding any danger of the rotary saw passing entirely through the form 5.

Various kinds of saw blades can be used in the instrument according to the nature of the material to be cut, and the instrument can be made of various sizes and materials.

What I claim, is:

1. An instrument of the type described, comprising pivoted members, rollers carried by the pivoted ends of said members, a rotary saw carried by one of said members, and means interposed between the outer ends of said members and adapted to regu-

late the outer end of one member relative to the outer end of the other member.

2. An instrument of the type described, comprising pivoted members, rollers carried by the pivoted ends of said members, a handle carried by one of said members adjacent to the pivoted end thereof, a rotary saw carried by the same member and adapted to extend through the other member, handles carried by the rear ends of said members, and means interposed between said members adjacent to said handles and adapted to regulate the position of one handle relative to the other handle.

3. An instrument of the type described, comprising pivoted members, rollers carried by the pivoted ends of said members, a handle carried by one of said members adjacent to the pivoted end thereof, a rotary saw carried by the same member and adapted to extend through the other member, handles carried by the rear ends of said members, and means interposed between said members adjacent to said handles and adapted to regulate the position of one handle relative to the other handle, said means including a threaded stem, a sleeve adjustably mounted upon said stem, a collar carried by the lower end of said sleeve, and a coiled spring adapted to be supported upon said collar, substantially as described.

4. An instrument of the type described comprising a pair of superposed members pivotally-connected together at one end, one of said members having a pair of handles and the other of said members provided with a single handle, that member provided with the pair of handles having one of its handles disposed at right angles with respect to the body-portion of the member, and a rotary saw carried by that member provided with the pair of handles at a point intermediate the ends of said member and to one side of the angularly-disposed handle, said saw extending through that member provided with the single handle.

5. An instrument of the type described comprising a pair of superposed members pivotally-connected together at one end, one of said members having a pair of handles and the other of said members provided with a single handle, that member provided with the pair of handles having one of its handles disposed at right angles with respect to the body-portion of the member, a rotary saw carried by that member provided with the pair of handles at a point intermediate the ends of said member and to one side of the angularly-disposed handle, said saw extending through that member provided with the single handle, and means for regulating the position of said members with respect to each other.

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

CONSTANTIN WALDVOGEL.

Witnesses:
A. H. RABSAG,
MARY M. HEDDEN.