Feb. 9, 1926. **1,571,959**

A. MULLIGAN

SURGICAL INSTRUMENT SUPPORT

Filed July 12, 1923 2 Sheets-Sheet 1

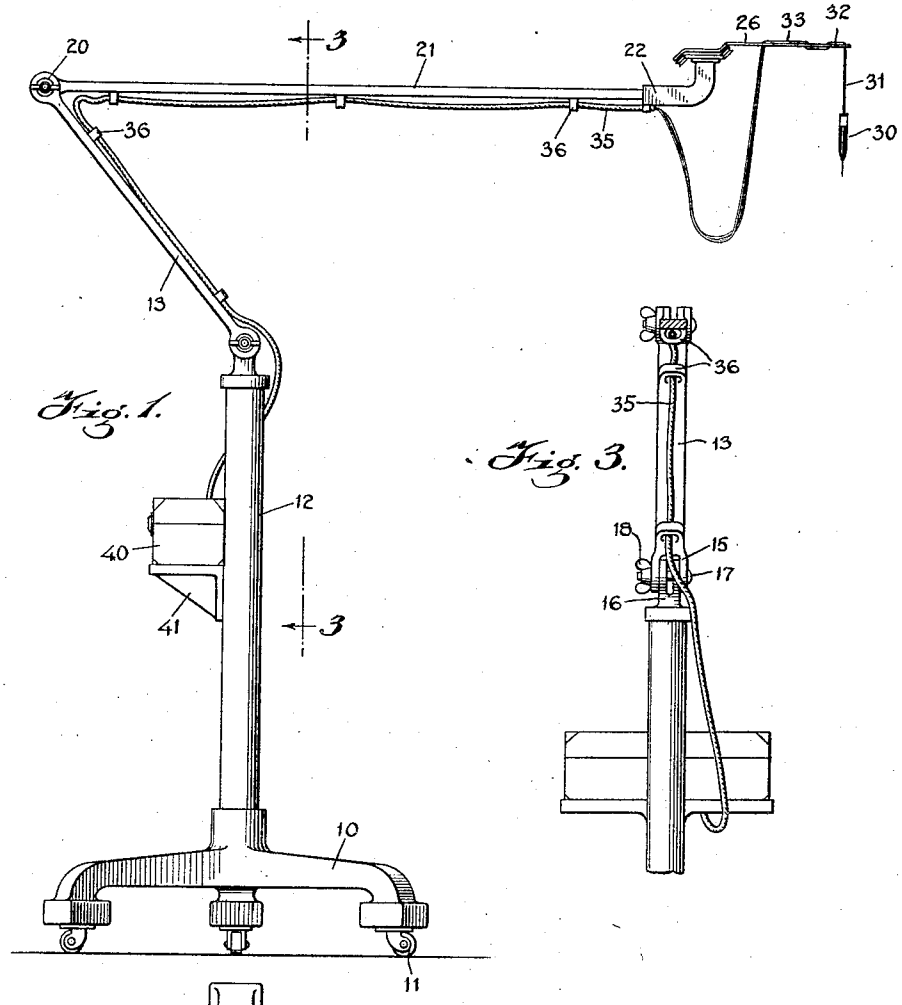


Fig. 1.

Fig. 3.

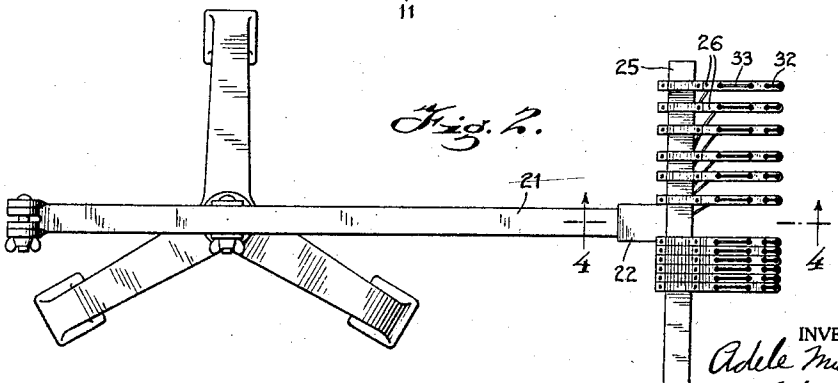


Fig. 2.

INVENTOR
Adele Mulligan
BY Schechter & Rothstein
ATTORNEYS.

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Fig. 4.

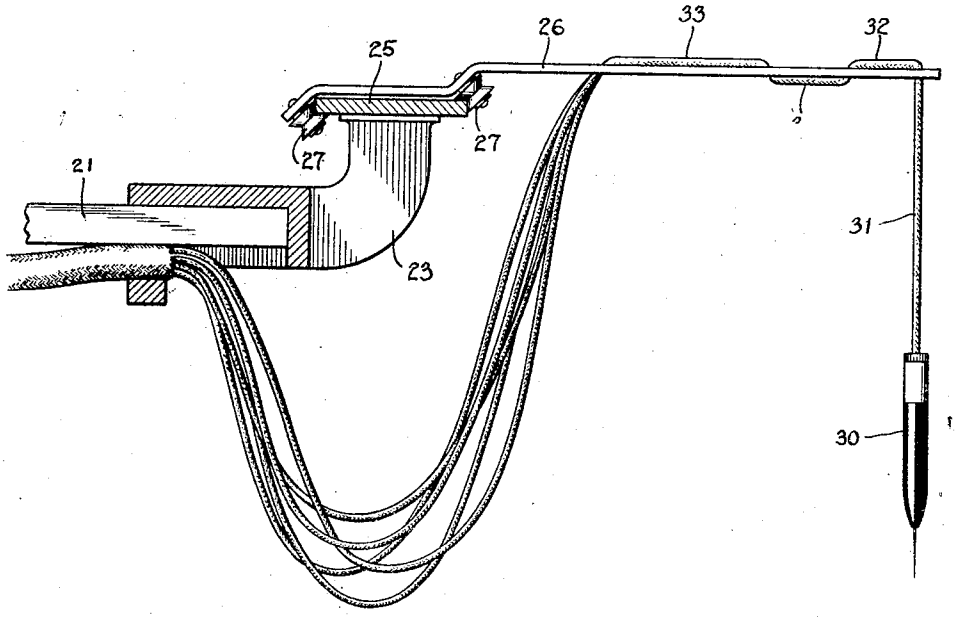
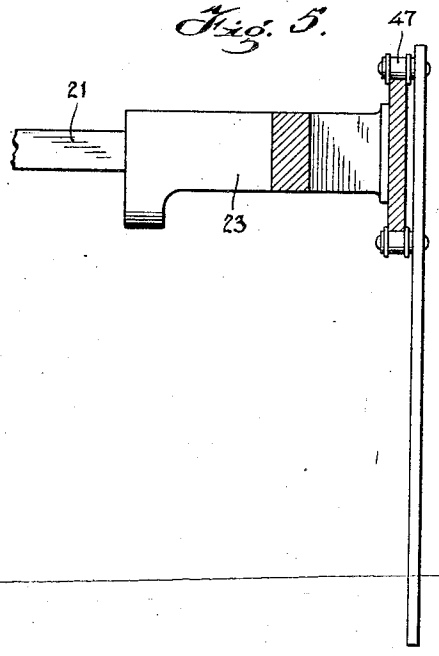


Fig. 5.



INVENTOR
Adele Mulligan
BY Schuchte, Hohol
his ATTORNEYS

Patented Feb. 9, 1926. 1,571,959

UNITED STATES PATENT OFFICE.

ADELE MULLIGAN, OF NEW YORK, N. Y.

SURGICAL-INSTRUMENT SUPPORT.

Application filed July 12, 1923. Serial No. 651,004.

To all whom it may concern:

Be it known that I, ADELE MULLIGAN, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Surgical-Instrument Supports, of which the following is a specification.

This invention relates to adjustable supporting devices adapted especially to support one or more surgical instruments. More particularly, this invention relates to an adjustable support for an apparatus employed in the electrical removal of superfluous hair. Devices of the latter kind usually employ a plurality of needles, one or more of which are adapted to be used at a time. It is one object of my invention to provide a support for an apparatus of this kind which will permit the ready movement of the various needles or instruments relative to each other independently of each other, without interference of any kind.

It is a further object of this invention to provide a support for the electrical conducting means, which is simple in construction and to which said conductor may be attached without dismantling the device and after the support has been fully set up. For this purpose I provide preferably solid flat supporting members, provided with loops on the outside thereof, so that the conductor may be drawn through said loops and thus be supported upon said supporting members.

Other objects and advantages will appear as the nature of the improvements is better understood, the invention consisting substantially in the novel arrangement and correlation of instrumentalities herein fully described and illustrated in the accompanying drawings considered together or separately and then finally pointed out and specifically defined and indicated in the appended claims.

An example of a preferred embodiment of my invention is shown in the accompanying drawing in which:

Fig. 1 is a side elevation of the device embodying my invention.

Fig. 2 is a plan view of the device shown in Fig. 1.

Fig. 3 is a section taken on the line 3—3 of Fig. 1.

Fig. 4 is a side vertical section through the forward portion of the support.

Fig. 5 is a modified form of the device shown in Fig. 4.

Referring to the drawings, there is shown a base 10 which may be mounted upon the floor or upon a table and which may be provided with casters 11 for ready movement upon said floor or table. Fixed to the base 10 is a standard 12 upon the upper end of which is adapted to be swivelly connected an arm or link 13. The connection may comprise a fork 15 on the end of one of the members, as, for instance, on the end of link 13, into which fits a projection 16 on the upper end of standard 12, a bolt 17 passing through said fork and said projection and having a thumb screw 18 threaded on its outer end so that the link 13 may be set at any desired angle relative to the standard 12. Connected to the other end of link 13, as by a swivel joint 20 similar to that between link 13 and standard 12, is a second arm 21 provided at its outer end with an upturned portion 22 carrying at its upper end a laterally extending rail or guide member 25. Mounted upon said rail are a plurality of carriers 26, each provided at one end with a pair of rollers 27 adapted to engage opposite edges of said rail. In the form shown in Fig. 4, said rollers are inclined to engage diagonally opposite edges of the rail 25, which is here shown rectangular in cross section, so that the carriers 26 cannot be either mounted upon or detached from said rail in any manner except by rolling them completely off the ends of said rail. Both the shape of the rail and the form of the rollers may be modified at will, the same general principle being observed, that is, that the rollers shall have flanges to grip the rail and prevent accidental detachment of the carriers. In the modification shown in Fig. 5, the rail is shown rectangular as in the Fig. 4 device, but the rollers 47 are not inclined but engage the full opposite side edges of said rail. If desired, the carriers 26 may be slidably mounted upon said rail, thus obviating the use of rollers and necessitating merely suitable flanges engaging around the edges of the rail. As shown, the carriers are mounted with their longitudinal axes at right angles to the direction of their movement along the rail. The rail is here shown straight, thus resulting in rectilinear movement of the carriers, but it will be understood that the same would apply if the

rail were curved or shaped in any other manner to provide, for example, curvilinear movement of the carriage. The carriers 26 extend outwardly from the rail a predetermined distance and from the ends of said carriers are adapted to be suspended the needles 30. Each needle has connected thereto a flexible conductor 31 which passes through holes 32, 33, in the carrier blade to provide sufficient friction between the flexible conductor and the carrier to maintain the needle in any set position, said flexible conductor being united at a point below the outer end of arm 21 into a single cable 35 which is attached to said arm by means of rivets or loops 36 upon said arm and upon arm 13. The cable extends to the battery or other source of current 40, which may be mounted upon a bracket 41 fixed to the standard 12. The arms 13 and 21 are preferably made of flat strips of metal or other suitable material, so that the cable 35 will lie flat against the surface of said strips without any tendency to roll or to be displaced.

It will thus be observed that the support comprising base 10, standard 12, arms 13 and 21 and rail 25 may always be fully set up as a unit and that the electrical apparatus may be applied to said fully set up support whenever desired, that is, the source of current 40 is positioned upon the bracket 41, the cable 35 is drawn through the loops 36 and the individual conductors 31 passed through the openings in the respective carriers 26 to the needles 30. It will be further apparent that the carriers 26 may be operated independently of each other, the rail 25 being made long enough so that all but the carriers in use may be moved to some ineffective position near the ends of the rail. Each carrier is free to move and in said movement does not cause corresponding movement of the other carriers because it has no engagement, frictional or otherwise, with said carriers.

In accordance with the provisions of the patent statute, I have described the principle of my invention, together with the apparatus which I now consider to represent a practical embodiment thereof, but I desire it understood that my invention is not confined to the particular form of apparatus herein shown and described, the same being merely illustrative, and that the invention can be carried out in other ways without departing from the spirit of the invention, and, therefore, I claim broadly the right to employ all equivalent instrumentalities coming within the scope of the appended claims, and by means of which the objects of my invention are attained, and the new results accomplished, as herein set forth, as it is obvious that the particular embodiments herein shown and described are only some of many that can be employed to attain these objects and accomplish these results.

Having described my invention, what I claim and desire to secure by Letters Patent is:

1. In a device of the character described, a pedestal, an arm carried by said pedestal, a rail supported by and in transverse relation to said arm and a plurality of independent instrument carriers slidable on said rail, each provided with depending members to clasp the rail and prevent angular displacement of said carriers thereon.

2. In a device of the character described, a pedestal, an arm carried by said pedestal, a rail supported by and in transverse relation to said arm and an instrument carrier slidable on said rail and provided with flanged members adapted to embrace opposite faces of said rail and to prevent angular displacement of said carrier thereto.

3. In a device of the character described, a pedestal, an arm carried by said pedestal, a rail supported by and in transverse relation to said arm and an instrument carrier mounted upon said rail and provided with flanged rollers positioned to embrace opposite faces of said rail to permit slidable movement of said carrier along said rail but to prevent angular displacement of said carrier relative to said rail.

4. In a device of the character described, a pedestal, an arm carried by said pedestal, a rail supported by and in transverse relation to said arm, an electrode carrier in transverse relation to said rail and having an end spanning said rail, a pair of flanged rollers spaced apart along said end and embracing the rail to support said carrier thereon, whereby slidable movement of said carrier on said rail is permitted but angular movement of said carrier relative to said rail is prevented.

This specification signed this 9th day of July, 1923.

ADELE MULLIGAN.