

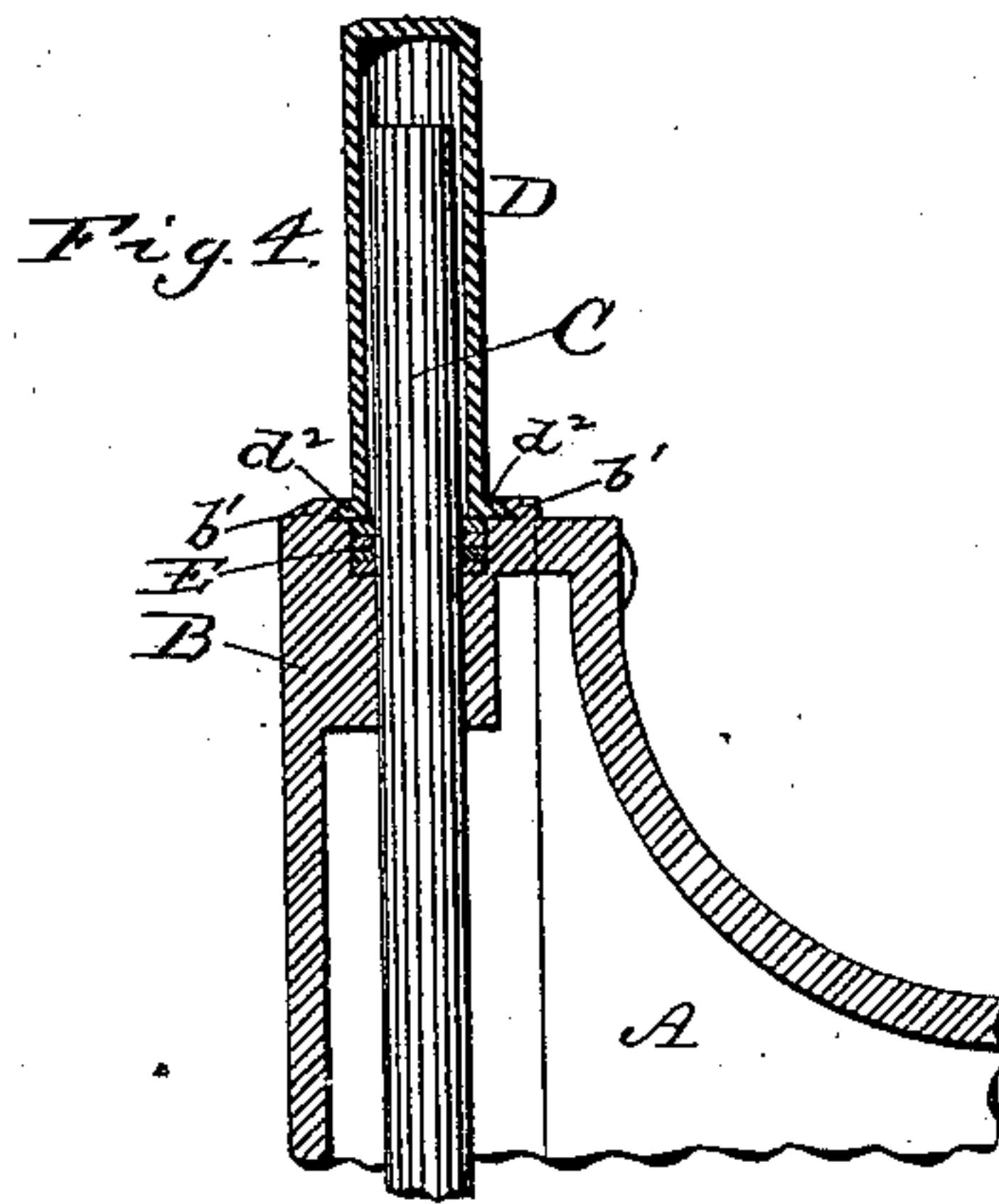
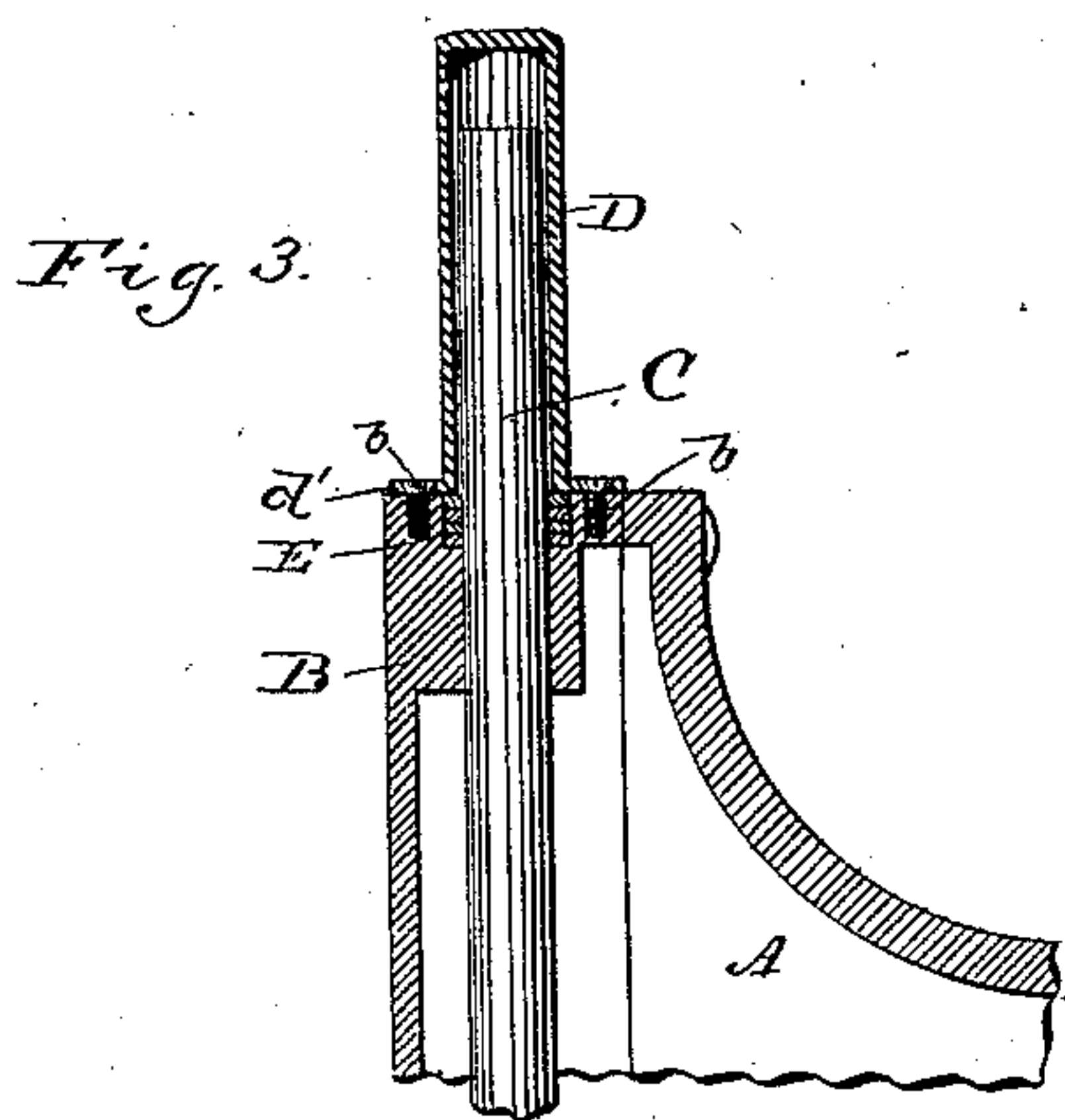
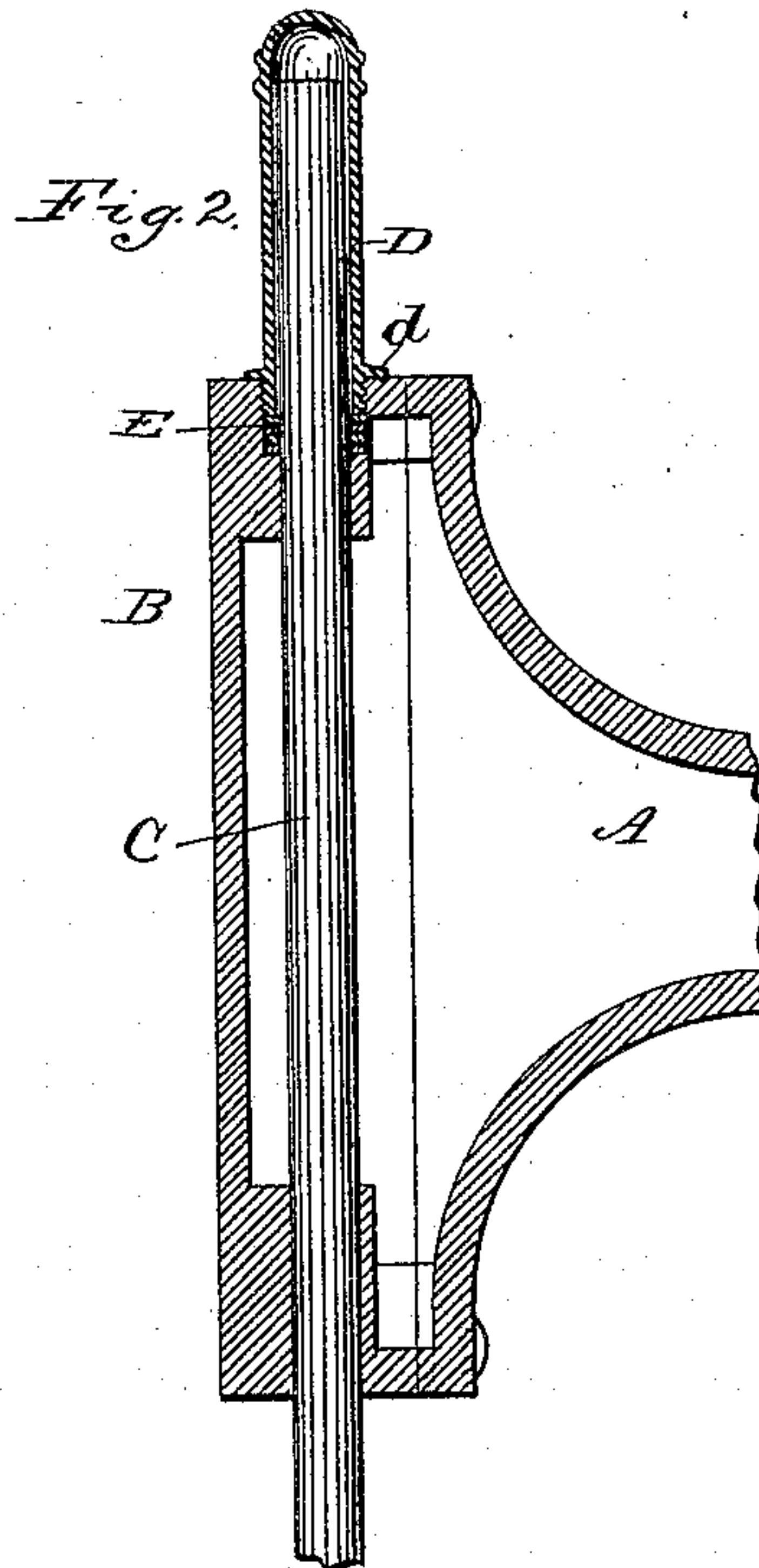
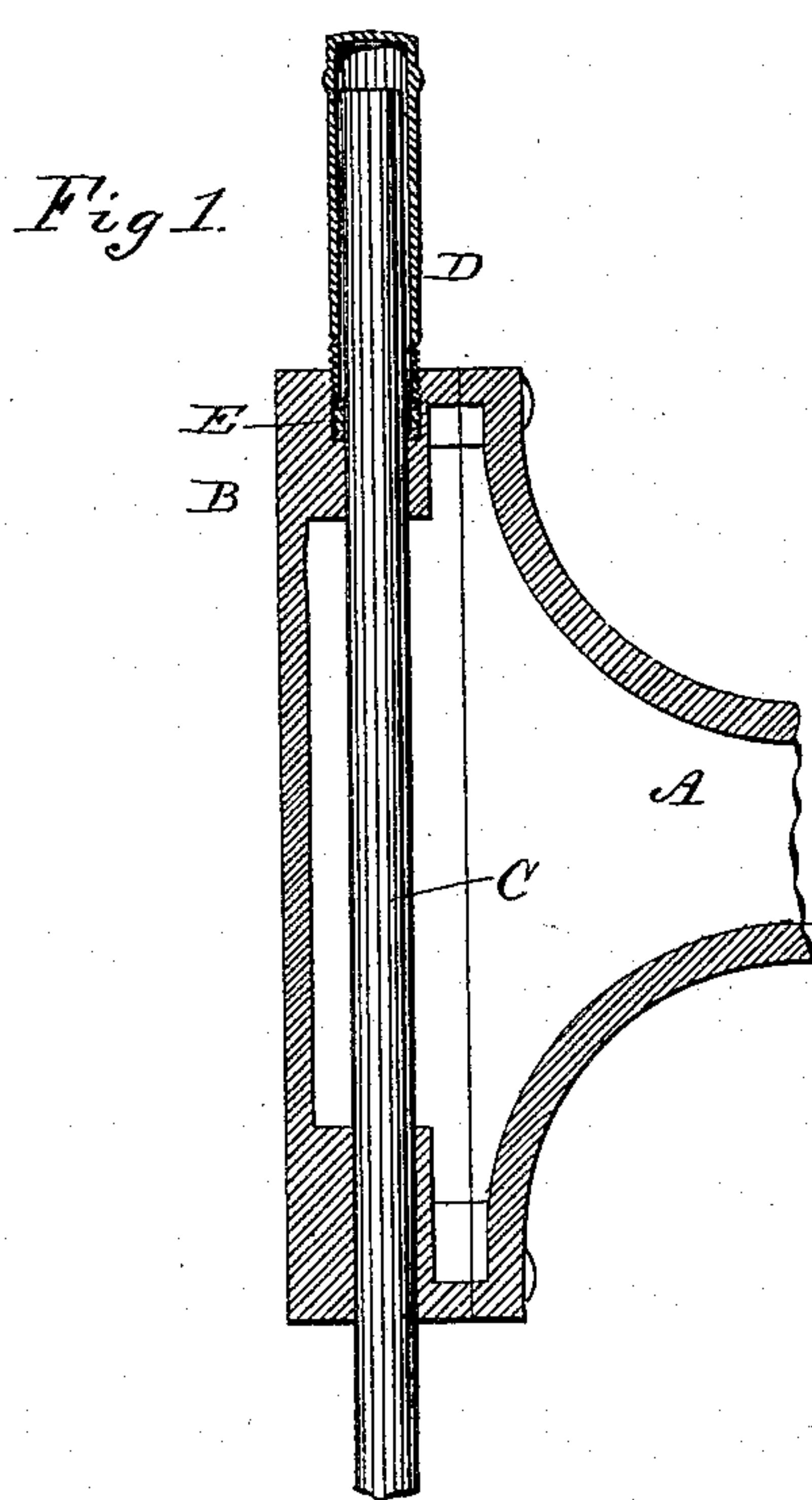
(No Model.)

W. CARR.

COVER FOR SEWING MACHINE NEEDLE BARS.

No. 347,089.

Patented Aug. 10, 1886.



Witnesses

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Att'y.

UNITED STATES PATENT OFFICE.

WILLIAM CARR, OF ST. LOUIS, MISSOURI.

COVER FOR SEWING-MACHINE NEEDLE-BARS.

SPECIFICATION forming part of Letters Patent No. 347,089, dated August 10, 1886.

Application filed March 10, 1885. Serial No. 158,382. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CARR, a citizen of the United States, residing at St. Louis, in the county of St. Louis and State of Missouri, have invented certain new and useful Improvements in Caps or Covers for Sewing-Machine Needle-Bars, of which the following is a specification, reference being had therein to the accompanying drawings.

10 My invention relates to covers for sewing-machine needle-bars similar to that shown by my Patent No. 284,533, dated September 4, 1883, the object of my present invention being to provide covers or caps which will more perfectly protect the needle-bars from dust and more effectually prevent the oil by which such bars are lubricated from spattering on the work when the machines are running at high rates of speed than the devices shown by my said patent.

20 My invention also comprises means for retaining a packing for absorbing the surplus oil, adjacent to the needle-bars, so that they may to some extent be automatically lubricated when dry.

25 In carrying my invention into effect I provide a cap or thimble similar to that shown by my aforesaid patent, but closed at its top, so that no dust can enter and no oil escape therefrom, it having been found in practice that sufficient air can enter and be discharged from the cap, through the lower end thereof and the upper bearing for the needle-bar, to enable the latter to work properly in the cap or cover, which latter will be fixedly secured to the top of the head in any suitable manner. I prefer to form a recess around the needle-bar in the top of the head beneath the cap for holding an oil-packing, consisting of rings or washers of cloth, felt, or other similar absorbent material, said packing being held in place in its recess by the shoulder on the lower end of the cap. This packing will absorb the surplus oil when the needle-bar has been newly lubricated, and will allow the same to be slowly imparted to the bar when the latter becomes comparatively dry. It will be understood that with my closed caps the packing will be loose enough to admit of the passage of air into and out of the caps.

50 In the drawings, Figure 1 is a sectional view illustrating one form of my invention, and Figs. 2, 3, and 4 are similar views showing slightly modified forms thereof.

A indicates a portion of the bracket-arm of a sewing-machine, and B the head attached thereto. The head B, as is well known, usually consists of two portions, one of which is formed integral with the arm and the other of which is removably secured to the fixed portion by screws. The needle-bar C usually has its vertical bearings in the removable portion of the head, which is termed the "cap" or "face" plate; but so far as my invention is concerned the needle-bar may have its bearings in either the fixed or the removable portion of the head.

65 D is the needle-bar cap or cover, consisting of an inverted thimble closed at its top, and fixedly attached to the top of the head B in any suitable manner, as by threading its lower portion and screwing the same into a threaded socket in the top of the head, as in Figs. 1 and 2, by means of small set-screws *b*, passing through a flange, *d'*, as in Fig. 3, or by providing the top of the head with small ribs *b'*, beneath which a flange, *d''*, on the cap tightly fits, as in Fig. 4. In all of these constructions the cap will be firmly secured in place over the top of the needle-bar, and will effectually protect the latter from dust and prevent the lubricating-oil thereon from being spattered on the work when the machine is running rapidly, the reciprocating upper end of the needle-bar being also fully concealed from the view of the operator, so that the eyes of the latter will not be dazzled thereby.

85 I prefer to form a recess beneath the cap D for the reception of a packing, E, consisting, preferably, of one or more rings or washers of felt, cloth, or analogous absorbent material adapted to retain the surplus oil when the latter is first applied and to distribute the same slowly to the needle-bar as the bearings become somewhat dry. This packing is held in place by the shoulders on the lower ends of the caps D.

95 I am aware that it is not new to conceal and protect the needle-bars of sewing-machines by making said bars short and providing bearing therefor inside of the head; but this construction, being more expensive than that generally in use, is objectionable, and has not been adopted to much extent.

100 I am also aware that adjustable hollow screws, which have sometimes been closed at their tops, have been used in sewing-machines for

regulating the stress of the presser-bar springs, said screws extending entirely through the tops of the heads over the presser-bars, which latter do not usually project above the tops of the heads. These hollow screws are, however, necessarily adjustable, and there are no fixed bearings below them in the tops of the heads for the bars with which they are used, as is the case with my invention.

10 It is obvious that with the form of cap shown in Fig. 1 the packing E, when somewhat worn, may be compressed and crowded closer to the needle-bar simply by screwing down the cap slightly, and this can also be done to a limited extent with the form of cap shown in Fig. 2, 15 if the flange *d* is not in the first instance set down against the top of the head B or if an additional ring of packing be placed beneath the cap.

20 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the head of a sewing-machine having upper and lower fixed bearings for a needle-bar, of a reciprocating needle-bar projecting in operation above the 25 top of said head, and a closed cap or cover secured to the top of said head over said needle-bar, substantially as set forth.

2. The combination, with a sewing-machine head having a recess in its top and a reciprocating needle-bar working through the said recess, of a cap or cover secured to the top of said head over the said needle-bar, and an oil-packing of absorbent material retained in said 30 recess by the said cap, substantially as set forth. 35

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

WILLIAM CARR.

Witnesses:

C. C. LOGAN,

ALBERT BLANKE.