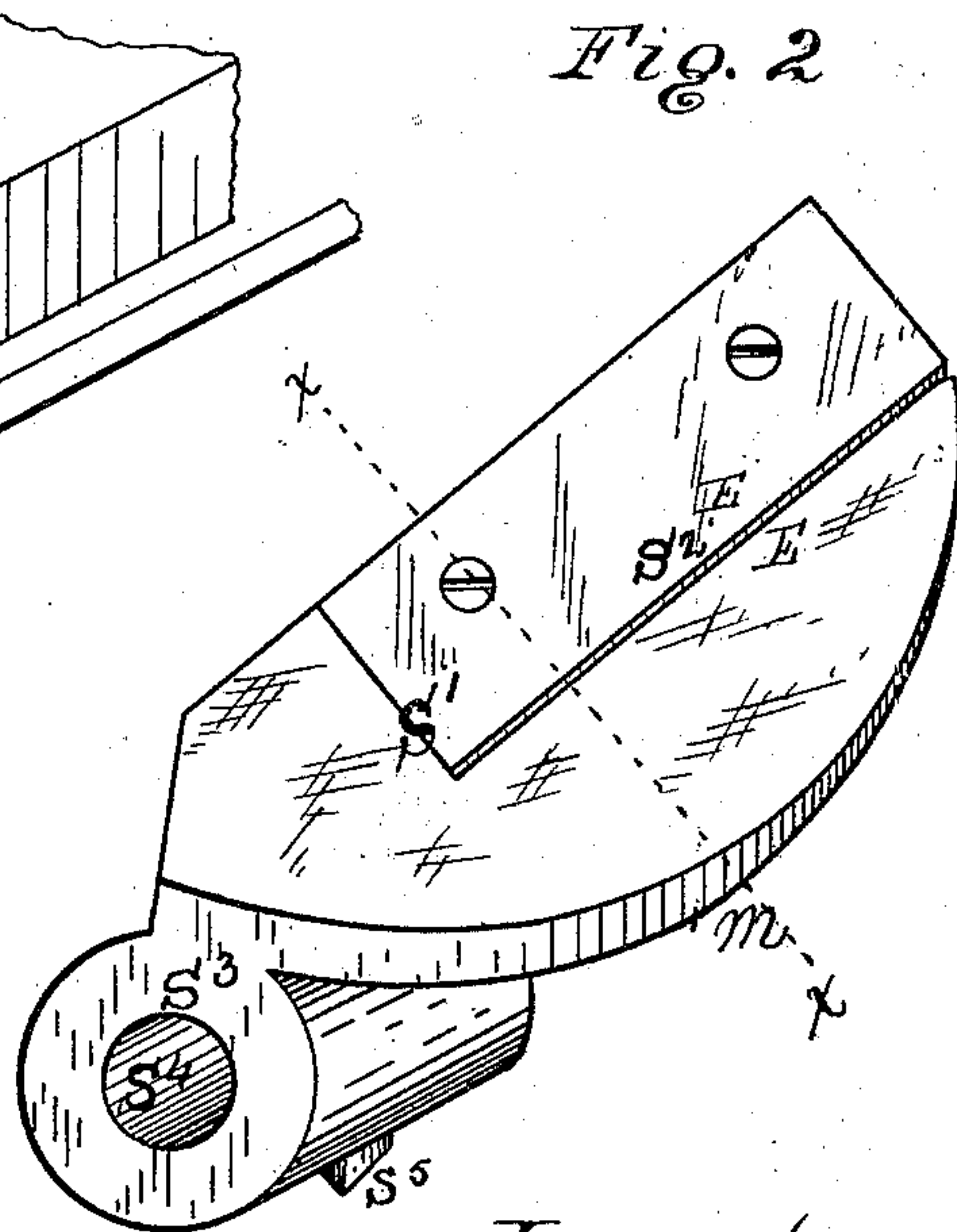
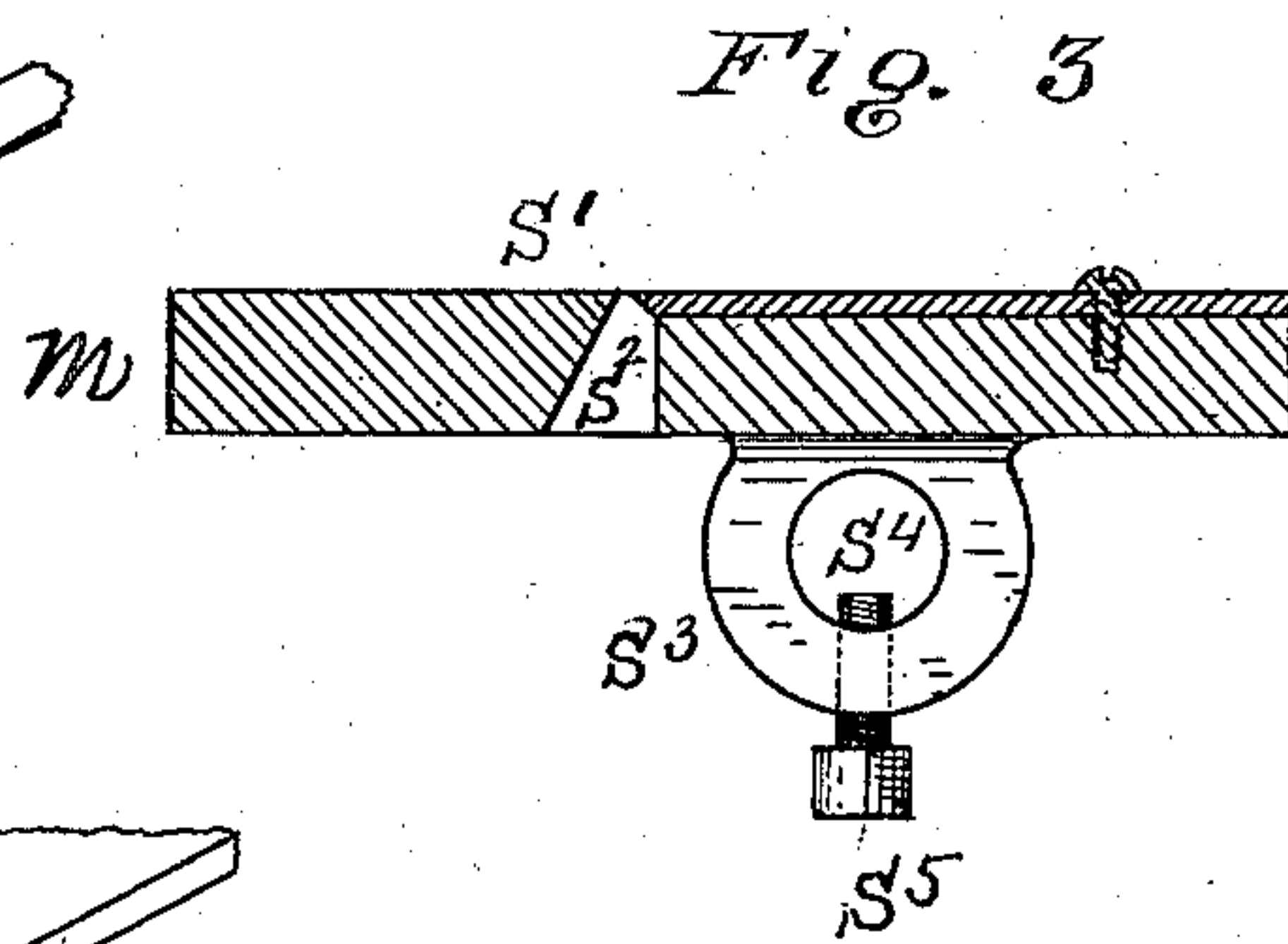
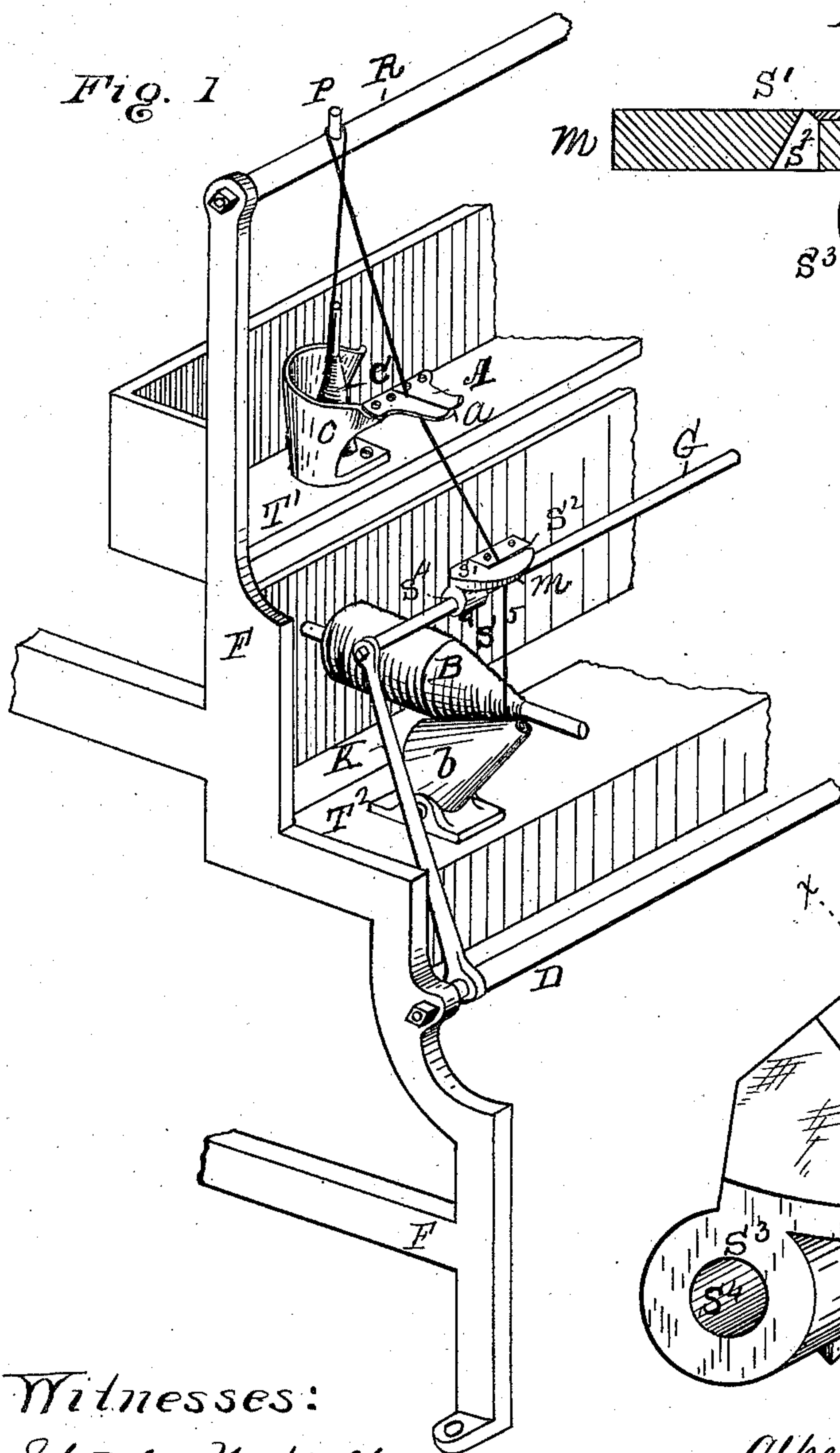


(No Model.)

A. SHAVER.
YARN STRIPPER.

No. 334,904.

Patented Jan. 26, 1886.



Witnesses:

Stanley M. Holden.

Charles S. Brintnall.

Inventor:
Alfred Shaver
by W. C. Nagan
his atty

UNITED STATES PATENT OFFICE.

ALFRED SHAVER, OF TROY, NEW YORK, ASSIGNOR OF ONE HALF TO LEWIS
E. SHAVER, OF SAME PLACE.

YARN-STRIPPER.

SPECIFICATION forming part of Letters Patent No. 334,904, dated January 26, 1886.

Application filed February 15, 1884. Serial No. 120,848. (No model.)

To all whom it may concern:

Be it known that I, ALFRED SHAVER, of the city of Troy, county of Rensselaer, State of New York, have invented new and useful
5 Improvements in Yarn-Stripping Devices, of which the following is a specification.

My invention relates to that class of devices which are used to free yarn from bunches, knots, and excrescences that are liable to be
10 produced on it while it is being spun. These stripping devices are usually made from a piece of sheet metal that is provided with a slit for the passage of the yarn, the edges of which slit tear off from the yarn, while the lat-
15 ter is being drawn through it, the knots or excrescences upon it.

The object of my improvement on this class of devices is to adapt the stripping-slit to better retain the yarn within it, and to
20 combine with the stripper a means to return the yarn to the slit should it from the motion of the reciprocating yarn-guide be drawn from or run out of the slit.

Accompanying this specification, and forming part of it, there is a sheet of drawings containing three figures illustrating my invention, with the same designation of parts by
25 letter-reference used in all of them.

Of these illustrations, Figure 1 is a perspective of a part of a "bobbin-winder," with my invention applied thereto. Fig. 2 shows a perspective of my improved device, illustrated as removed from the winder and upon a larger scale than it is shown at Fig. 1.
30 Fig. 3 illustrates a cross-section taken on the line *xx* of Fig. 2.

The several parts of the stripping device and those of the winder mechanism with which the former connects are designated by letter-
40 reference, and their function is explained as follows:

The letter F indicates the frame of that part of the winder mechanism that is illustrated; the letter T' its upper cop-table, and T² its
45 lower bobbin-table.

The letter R designates the tension-regulating pin-rod, and P the pin.

The letter A designates a preliminary stripping device, which may be used in connection with my improved device for the same
50 purpose, if desired, and it is made of the or-

dinary construction having the slit *a*, and it is shown as attached to the cop-bonnet *c*.

The letter G indicates a yarn-guide, which at its end is connected with crank K, and the
55 latter at its lower end with the rock-shaft D, the said rock-shaft being constructed to be reciprocatingly rotated so as to impart a reciprocating motion to the yarn-guide G.

The letter B designates the bobbin, and *b* 60 the conical presser.

The letter S' indicates my improved stripper, which is shown as formed with the usual stripping-slit, S², made in the plate E.

The letter S³ designates an offset made on 65 the under side of the device, and this offset is constructed with a passage-way, S⁴, and a set-screw, S⁵, for attachment and detachment.

The upper face of the plate E is flat, and the outer front edge thereof is curved, as indicated at *m*, and in operative connection the
70 plate is adjusted on the yarn-guide rod with its face in a horizontal plane, the curved outer edge operating to guide the yarn back into the stripping-slit should it by any means dur-
75 ing the reciprocation of the yarn-guide and attached stripper be drawn from the slit.

The operation of my improved stripper and the parts with which it connects is as follows: The yarn having been led from the cop C, 80 around and over the tension-regulating pin P to and through the upper stripper, A, and thence through the slit S² of my improved stripper, is wound on to the bobbin B by the rotation of the latter. As the yarn-guide G is
85 reciprocated to lay the yarn evenly on the bobbin-barrel, my attached stripper also moves with it in reciprocation, and by which motion the yarn within the slit is also moved back and forth therein in a line of motion
90 that is opposite to that of the reciprocating yarn-guide and attached stripper. This lateral movement of the yarn while passing through the slit increases the efficiency of the latter to remove the knots and bunches on the
95 yarn while passing through the slit. If from any cause the yarn thus moved in its passage is carried from out of the slit, on the return movement the curve *m* guides it back therein.

If desired, the upper stripper, A, may be 100 omitted and the yarn led directly from the tension-pin to my improved device.

I make no claim to the form of slit herein shown with beveled edges, for any of the ordinary stripping-slits may be employed. To attach my improved device, the latter is entered on the guide-rod and secured in place by the set-screw S⁵.

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

10 1. In combination with the rock-shaft D, provided with the crank-arm K, and the yarn-guide rod G, connected to the crank-arm, the yarn-stripper S', consisting of the horizontal plate E, having slit S², curved outer edge, *m*,
15 and sleeve S³, with set-screw S⁵, substantially as described, and for the purpose set forth.

2. The combination of a cop-bonnet, a yarn-stripper secured thereto, a tension-regulating rod provided with means to give tension to

the yarn, a yarn-guide rod and a yarn-stripper 20 per secured thereto, and a bobbin-spindle, substantially as described, and for the purpose stated.

3. The combination of the bobbin-spindle, guide-rod G, and means for reciprocating the 25 same, and yarn-stripper S', secured to said rod, with cop-bonnet *c*, yarn-stripper A, secured thereto, and the tension-regulating pin-rod R, substantially as and for the purpose set forth.

Signed at Troy, New York, this 1st day of 30 February, 1884, and in our presence, whose names were by us hereto written.

ALFRED SHAVER.

Witnesses:

GEO. F. HYDE,

CHARLES S. BRINTNALL.