

No. 881,336.

PATENTED MAR. 10, 1908.

N. & D. PAQUETTE.
OSCILLATING LEASE ROD.
APPLICATION FILED MAY 22, 1907.

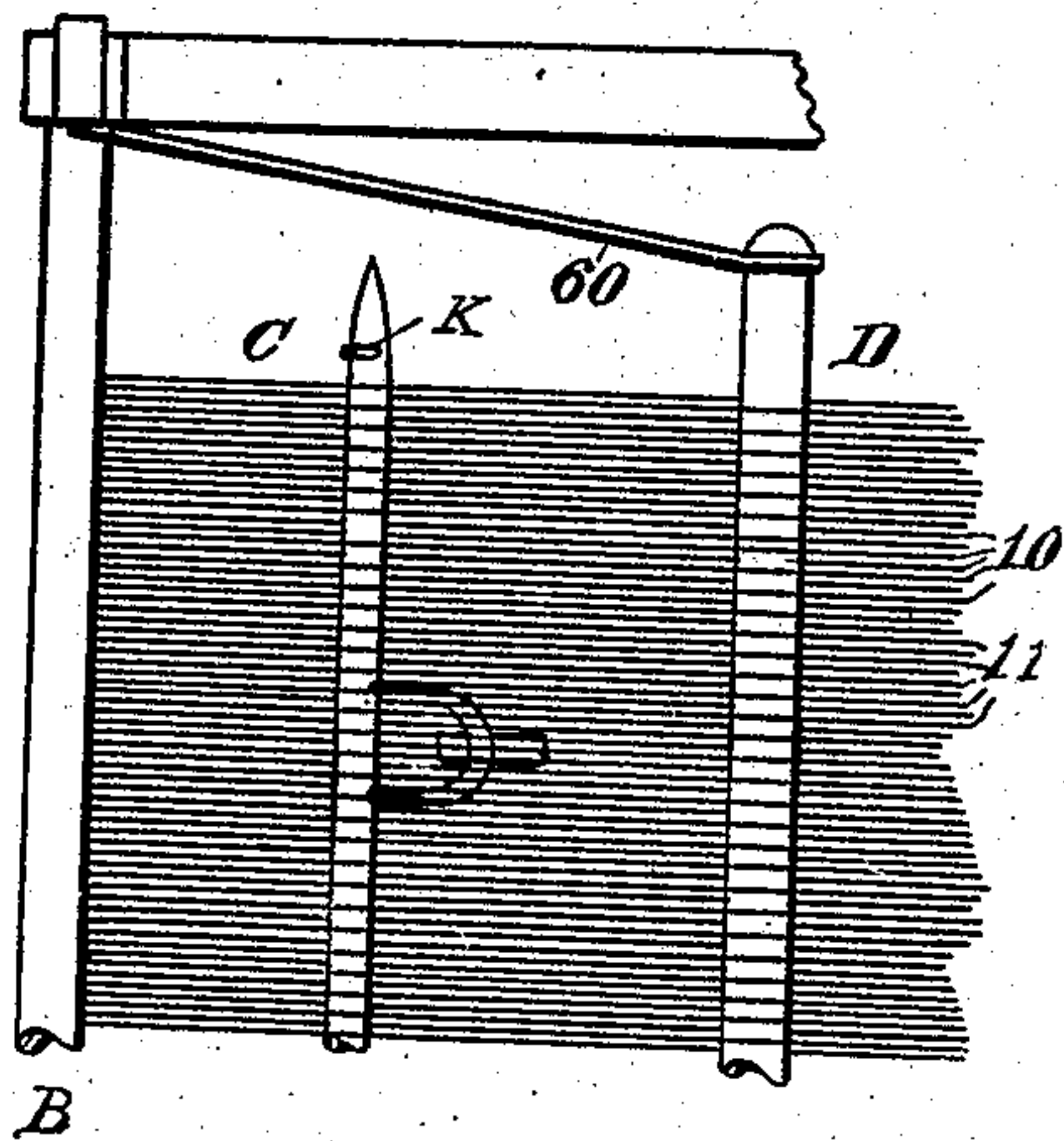


Fig. 1.

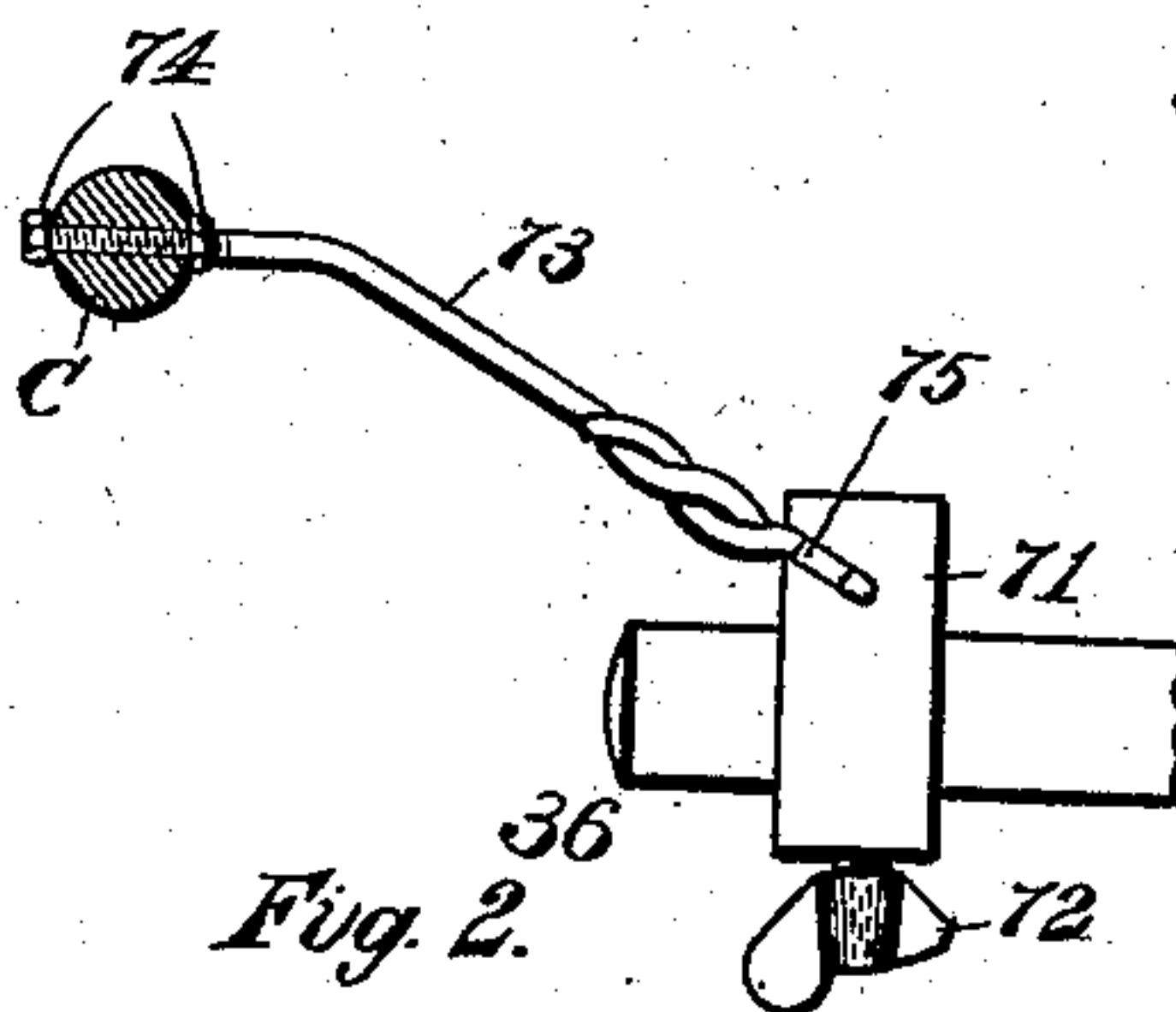


Fig. 2.

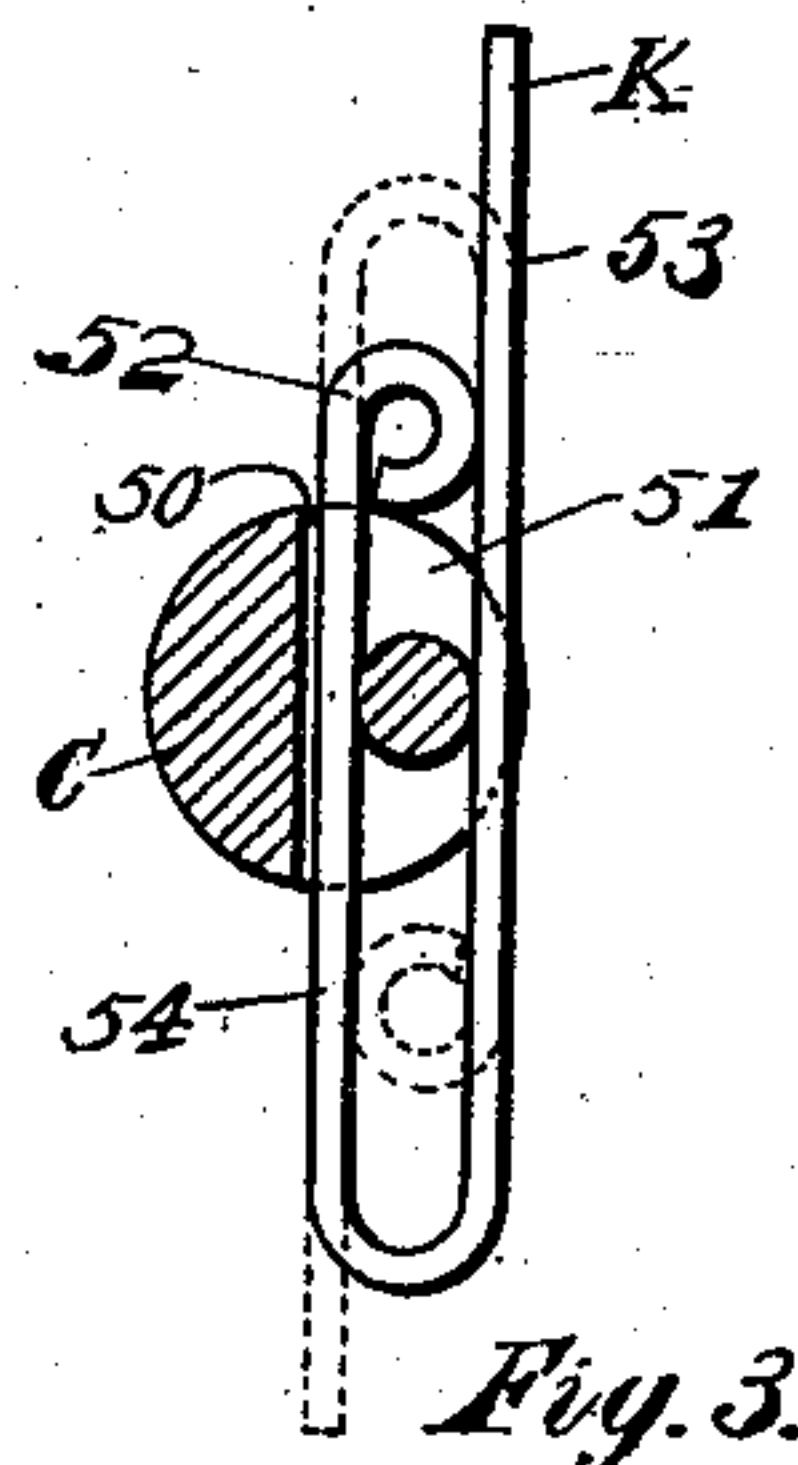


Fig. 3.

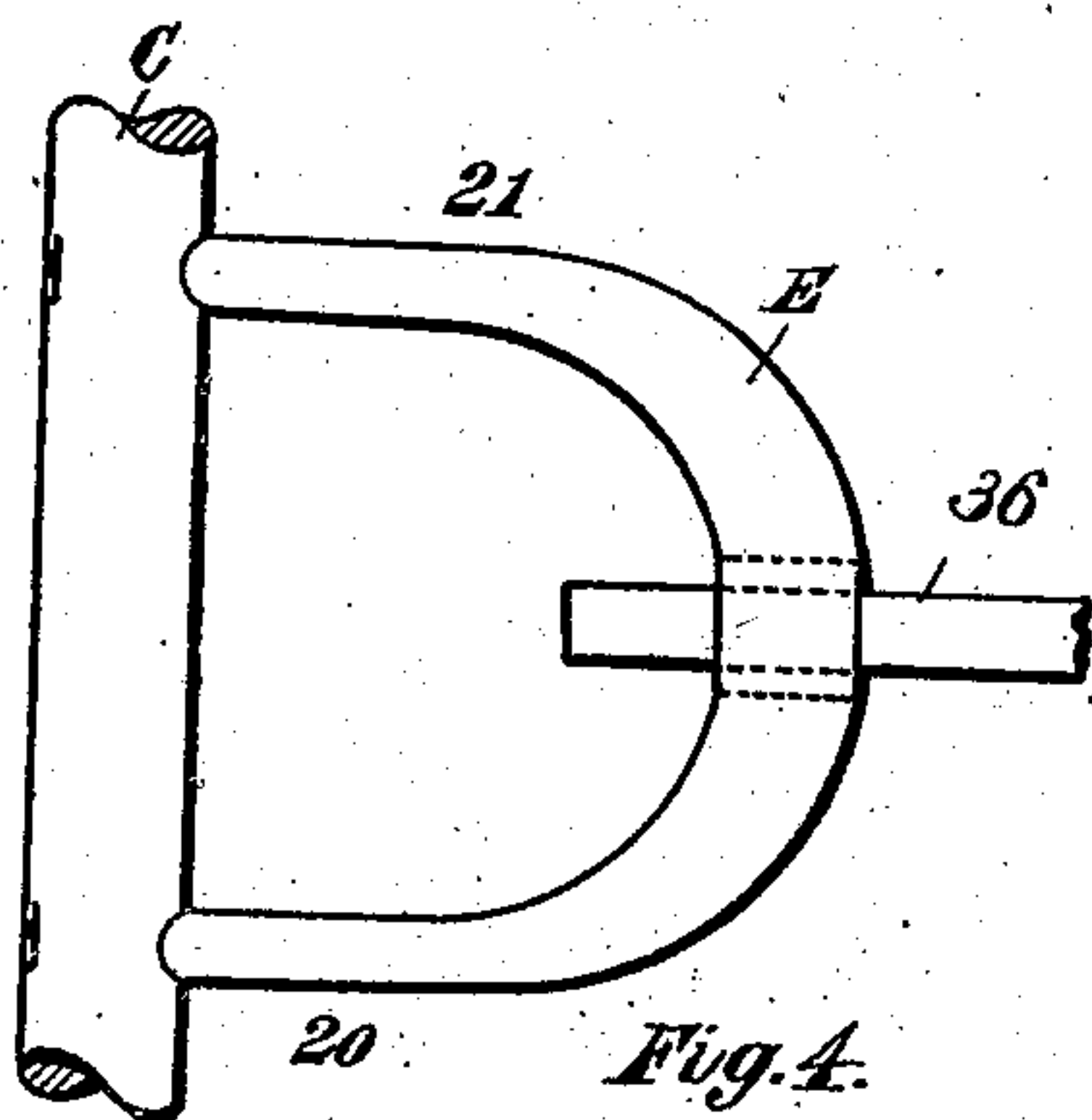


Fig. 4.

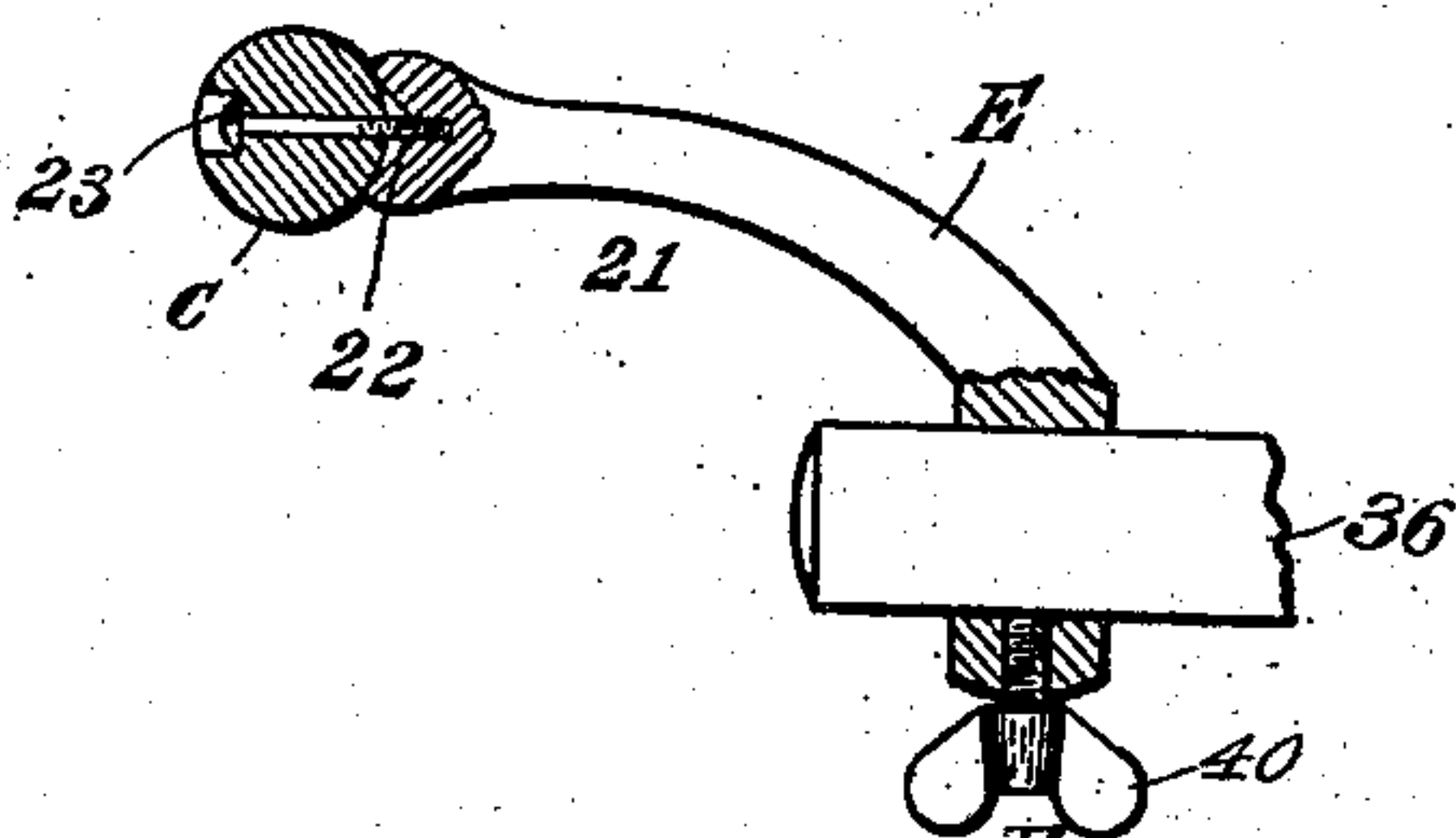


Fig. 5.

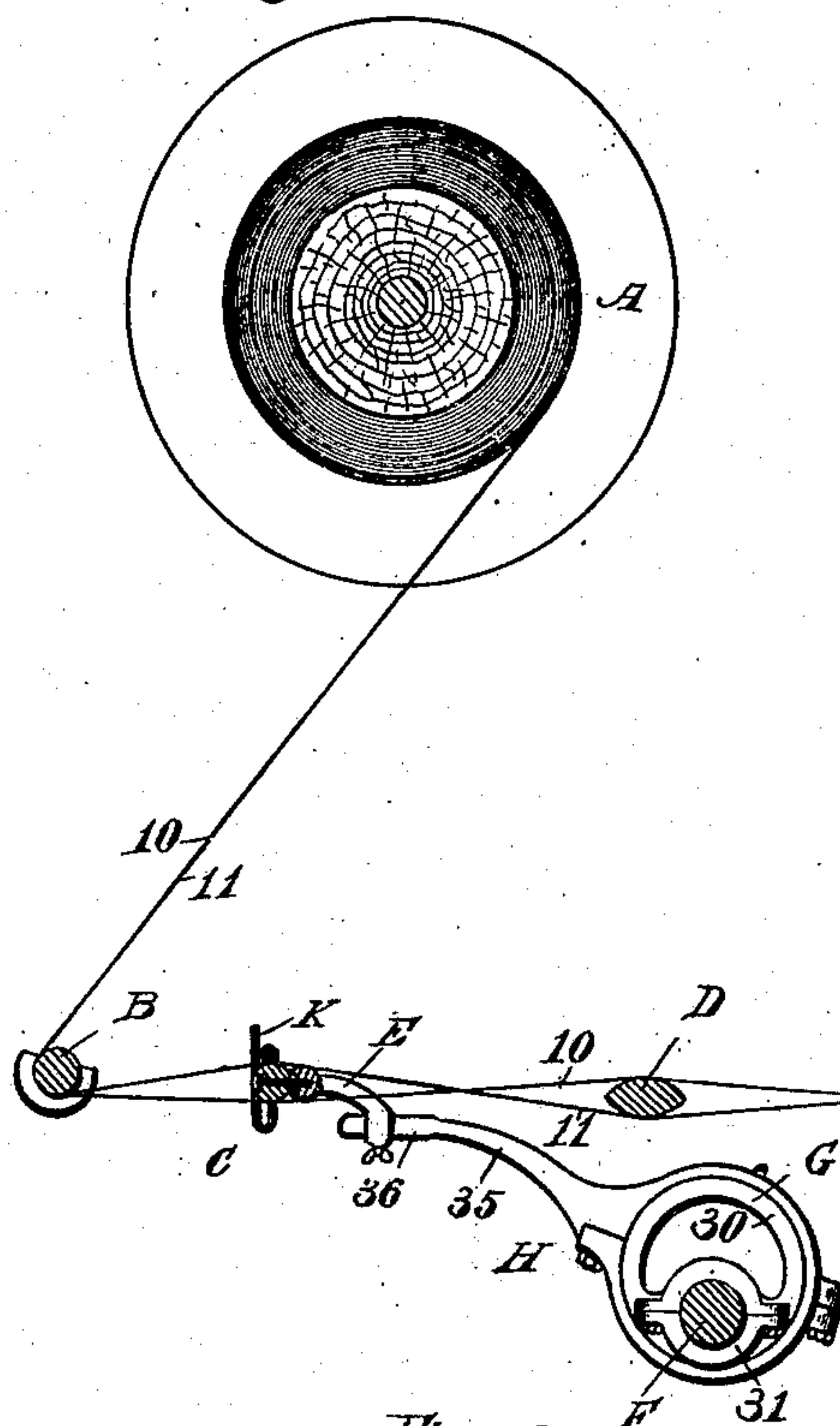


Fig. 6.

Witnesses:

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UNITED STATES PATENT OFFICE.

NAPOLEON PAQUETTE AND DONA PAQUETTE, OF LOWELL, MASSACHUSETTS.

OSCILLATING LEASE-ROD.

No. 881,336.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed May 22, 1907. Serial No. 375,048.

To all whom it may concern:

Be it known that NAPOLEON PAQUETTE and DONA PAQUETTE, both citizens of the United States, residing at Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Oscillating Lease-Rods, of which the following is a specification.

This invention relates to lease rods for looms and especially to those known as oscillating lease rods which are moved horizontally along and between the warp threads by suitable mechanism. Such oscillating lease rods are used largely for the purpose of separating the warp threads which frequently overlap or become bunched or crossed. In such cases, if they are not lined up parallel with and separate from each other, the threads are likely to break in passing through the harnesses. Such a lease rod also separates any warp threads which become stuck together by the starch or sizing. My invention has special reference to the mechanism and connections for such lease rods.

In the drawings, Figure 1 is a top view of part of one end of a loom showing the position of the lease rods and their connections with reference to the warp. Fig. 2 is an alternative construction for the connecting arms of the oscillating lease rod. Fig. 3 is a sectional view of the lease rod showing the wire guard at the end thereof. Fig. 4 is a top view of the yoke and Fig. 5 is a sectional side view thereof. Fig. 6 is a diagrammatic sectional side view of the device in place.

A represents the warp beam; 10 and 11 the warp threads; B the bar under which the warp passes to the harnesses; C the movable lease rod and D the stationary lease rod. The warp is unwound from beam A and passes around and under bar B after which it is divided by lease rod C forming a shed. From thence it crosses and passes over and under stationary lease rod D. Lease rod C may be round, oval or flat but it is preferably round and is held by the yoke E. This yoke E has two arms 20 and 21 which terminate in rounded heads in each of which is a V-shaped opening 22. Lease rod C rests in and against these openings 22. A screw 23 for each arm is countersunk in lease rod C and passes therethrough into arm 20 and 21 respectively. By using two connected arms, the lease rod

C is kept at right angles to the warp at all times and any tendency to skew is overcome.

Upon any convenient shaft, but preferably upon the crank shaft F for the lay, I place the split eccentric G composed of two parts 30 and 31 which are held together by suitable bolts. These parts are bolted tightly together and to shaft F whereby they are adjustable in any position on the shaft F. Around eccentric G by means of suitable bolts, I loosely fasten the split collar H which is extended to form a tongue 35. This tongue 35 is so curved and shaped that it terminates in a straight portion 36 which passes loosely through a suitable opening in yoke E. By means of thumb screw 40, yoke E may be adjusted for different kinds of work and for different looms at any point on tongue 35 and held in any position. A solid eccentric may be used, but a split eccentric is more easily replaced, and may be more readily placed upon an old loom.

It will be readily seen that as eccentric G rotates, it forces lease rod C back and forth between warp threads 10 and 11. It is by the rubbing of lease rod C along them that the warp threads are made parallel and threads which are stuck together are separated. Eccentric G should be so adjusted on shaft F that it will bring lease rod C forward with the lay beam and back with it, as otherwise there is danger of breaking the warp threads. It will be observed that only the rear lease rod is movable, as I find that the forward lease rod need not be movable, and the device is therefore simplified. This back and forth movement tends to spread out the warp and might cause the end threads to slip off from the lease rod C were it not for the device shown in Fig. 3. Lease rod C is pierced near each end with an orifice 50 which extends at one side to form a groove 51. The U-shaped wire K forms a guard and has a short shank 54 at one end of which is a ring 52, and at the other end has a long straight shank 53. This wire K is put in place by pushing end 53 through opening 50 as shown by the dotted lines, and then turning it around until it takes the position shown by the full lines with the middle portion of shank 53 resting in slot 51. This wire K serves to prevent the warp threads from sliding off the end of the lease rod C

when the warp is loosened up for any purpose and it can be instantly put in place or detached. The long shank 53 should preferably be so inserted as to be nearer the bar B than the short shank 54. A thong 60 connects stationary lease rod D with the frame of the loom or with bar B to steady it, to hold it in place and to keep the warp thereon. Another form of attaching lease rod C to tongue 35 is shown in Fig. 2 wherein the traveler 71 passes over the straight portion 36 of tongue 35 and is adjustably fastened thereto by thumb screw 72. The wire 73 is passed through traveler 71 and into suitable grooves 75 therein and is then given a double twist and each end is passed through lease rod C. Each end is threaded and lease rod C is held in place thereon by means of nuts 74 screwed on wire 73 at each side of lease rod C. The last form of holder serves very well, but I prefer the form first described with the yoke E, on account of there being no angles or sharp ridges to catch in the warp threads.

The manner of setting up the device is as follows. After the warp is on the loom, by operating the harnesses in the usual manner, I place the lease rod C in the warp without any attachments, and then insert the wire guards K. If the yoke E is used, the ends of arms 20 and 21 are brought up between the lower warp threads against the lease rod C and by means of screws 23 the two are fastened together. The proper adjustment is made by the thumb screw 40. With the device shown in Fig. 2, practically the same

process is used, except that nuts 74 hold the parts together instead of screws 23.

What I claim as my invention and desire to cover by Letters Patent is,

1. In a loom, a crank shaft, an eccentric carried thereby, a collar which incloses the eccentric and is extended to form a tongue, two arms carried by the tongue, and a lease rod carried by the two arms.
2. In a loom, a crank shaft, an eccentric carried thereby, a collar which incloses the eccentric and is extended to form a tongue, two arms adjustably carried by the tongue, and a lease rod carried by the two arms.
3. In a loom, a crank shaft, an eccentric carried thereby, a collar which incloses the eccentric and is extended to form a tongue, two arms carried by the tongue, a lease rod carried by the two arms, and a detachable wire guard at each end of the lease rod.
4. In a loom, a crank shaft, a split eccentric carried thereby, a split collar which incloses the eccentric and is extended to form a tongue, two arms adjustably carried by the tongue each of which terminates in a V shaped slot, a lease rod, and two screws countersunk in and passed through the lease rod each into one of the V shaped slots of the arms as described.

In testimony whereof we affix our signatures in presence of two witnesses.

NAPOLEON PAQUETTE.
DONA PAQUETTE.

Witnesses:

BERNARD A. CONNOR,
JOHN KEARNEY.