

(No Model.)

2 Sheets—Sheet 1.

R. D. TUCKER.
SEAM FINISHING MACHINE.

No. 366,746.

Patented July 19, 1887.

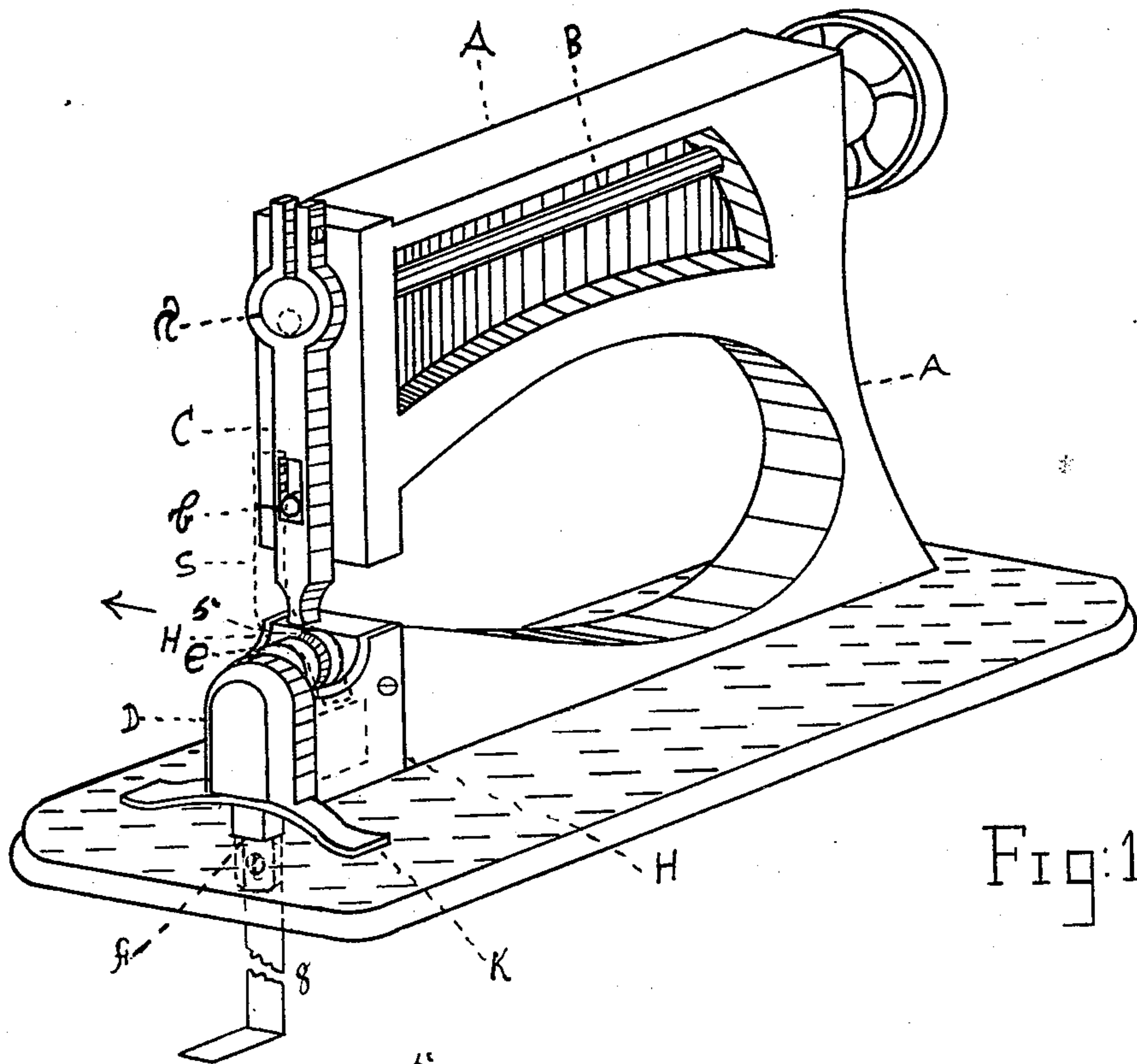


Fig:1.

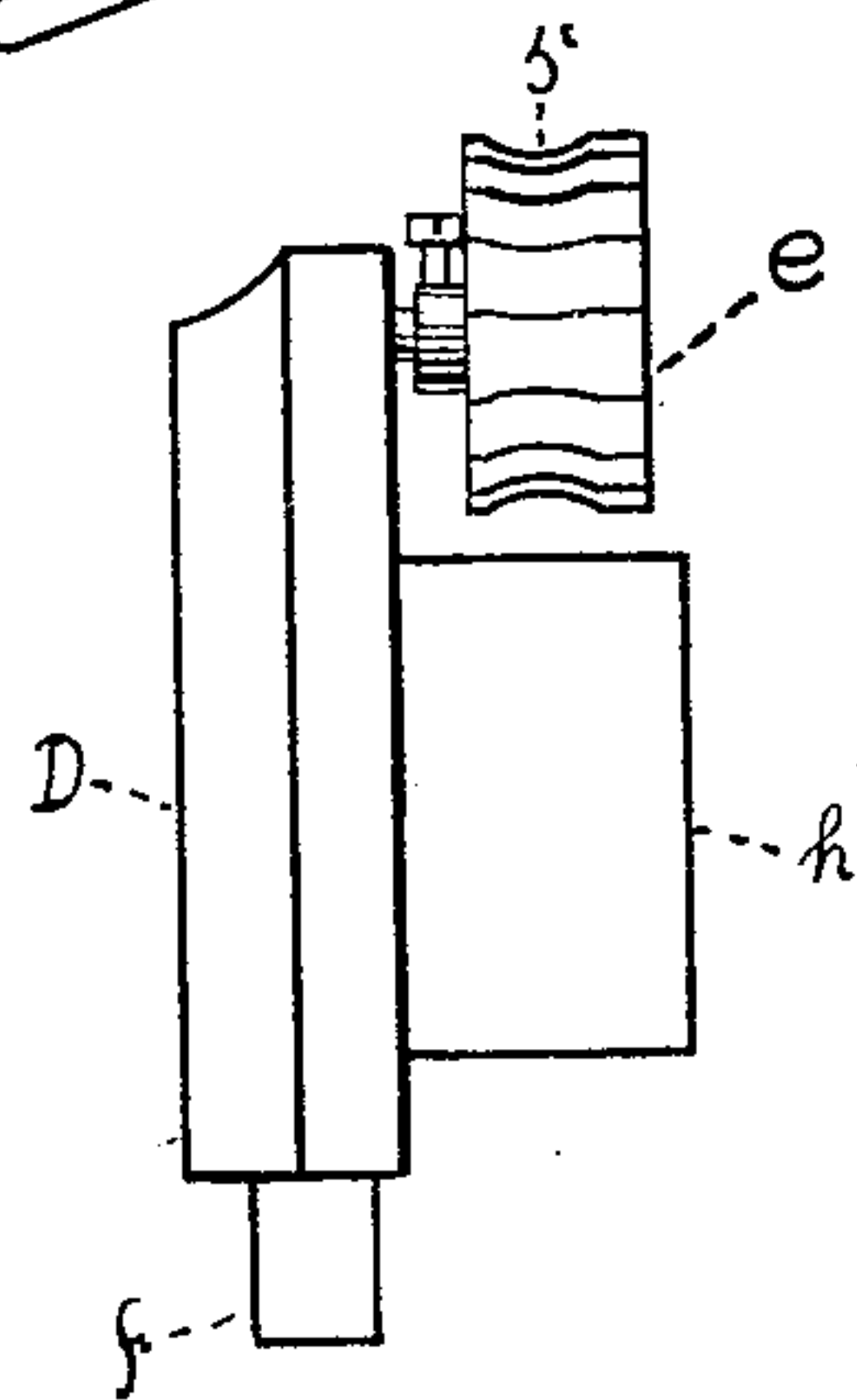


Fig:3.

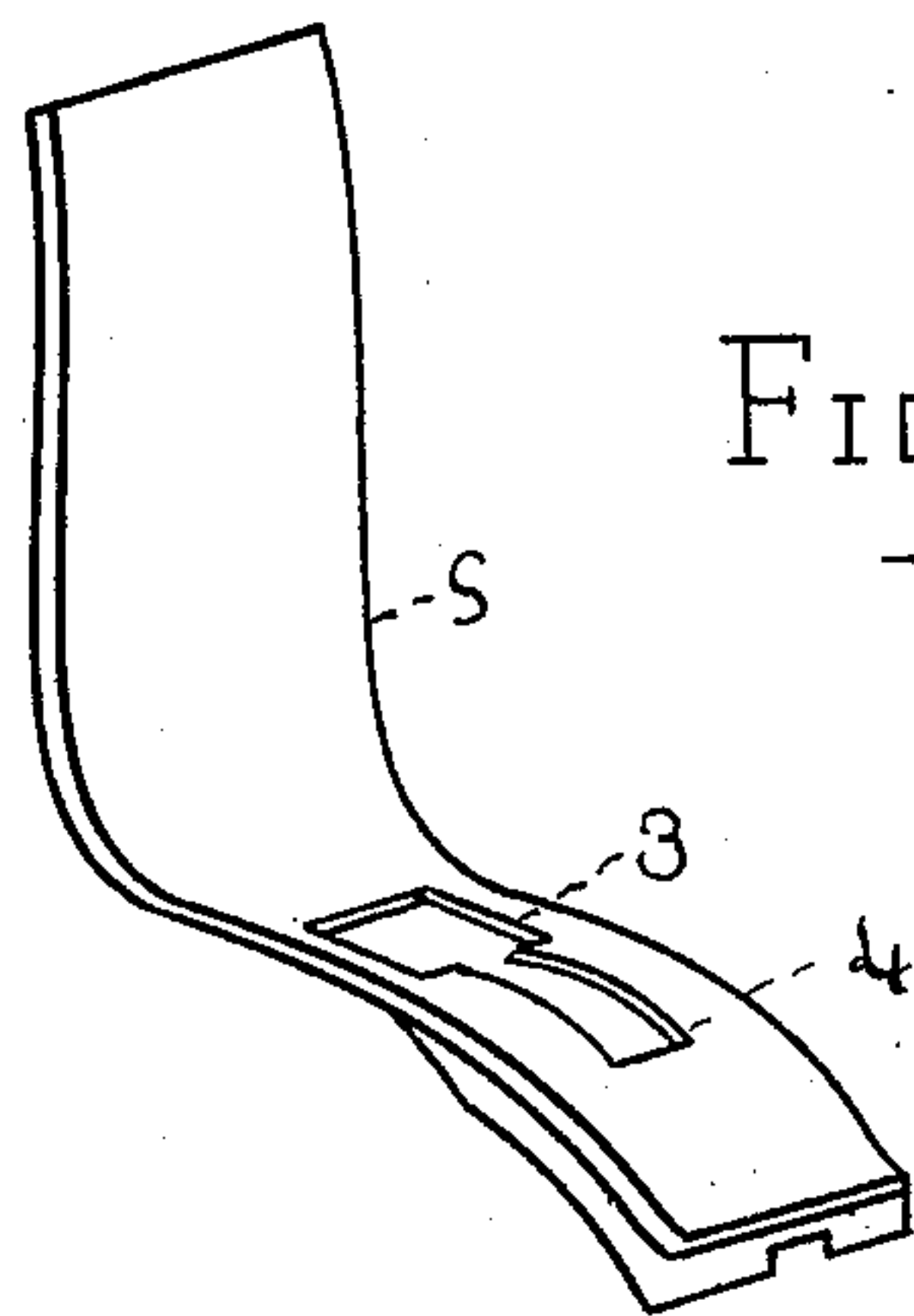


Fig:2.

Witnesses.

C. C. Tuttle
Chas. E. Payne.

Inventor.

Rollin D. Tucker

By *C. C. Tuttle*

Atty

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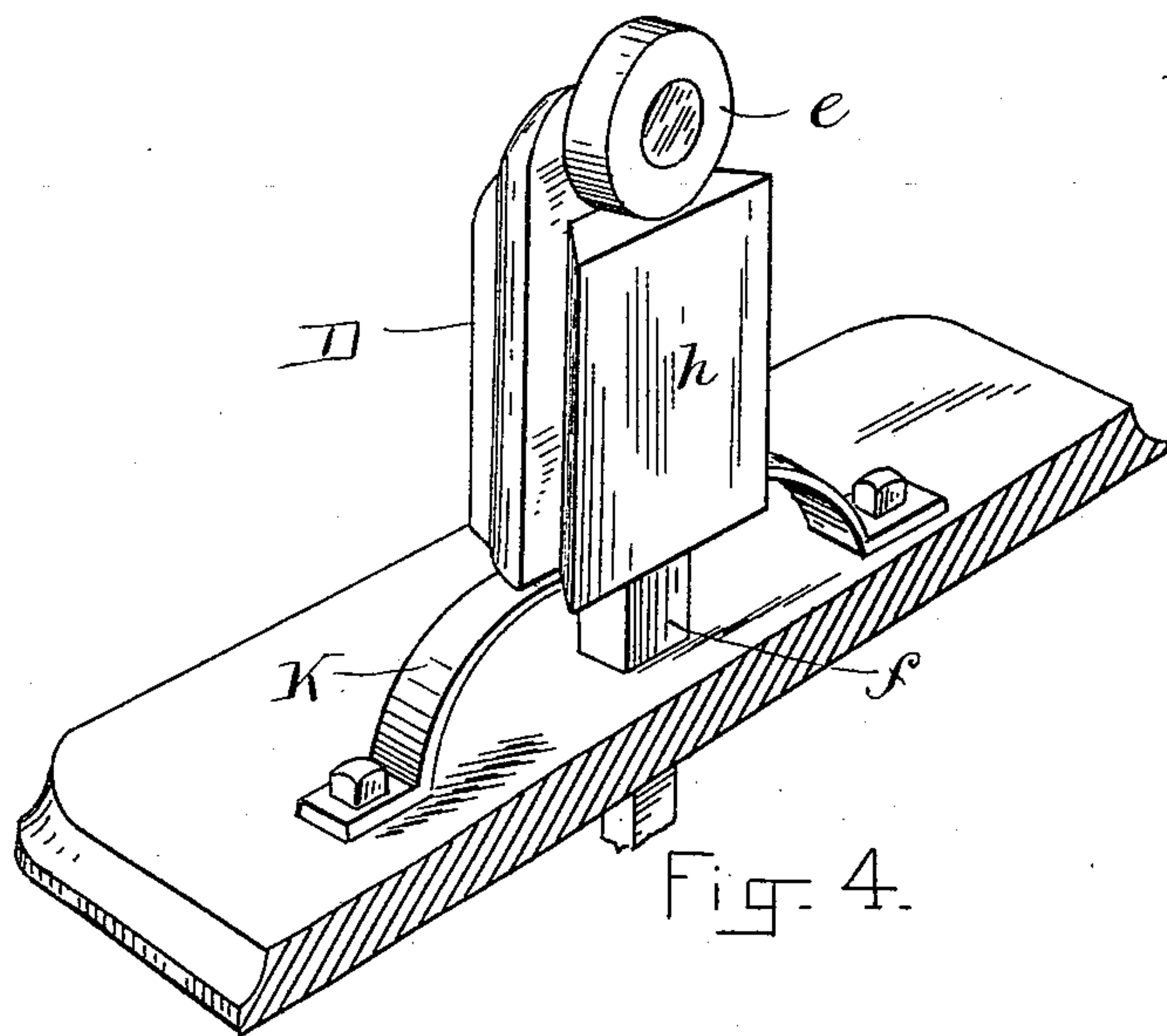


Fig. 4.

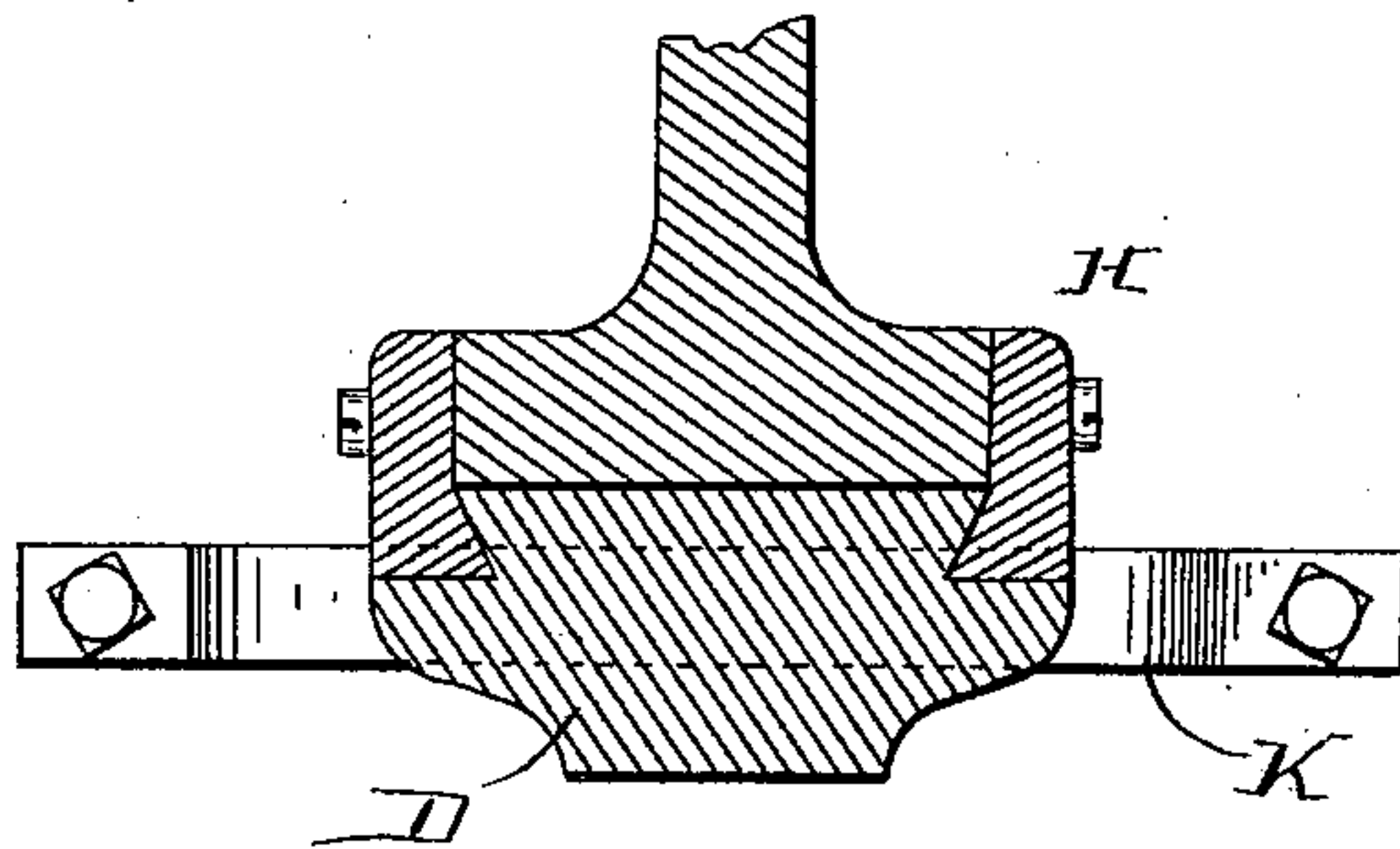


Fig. 5.

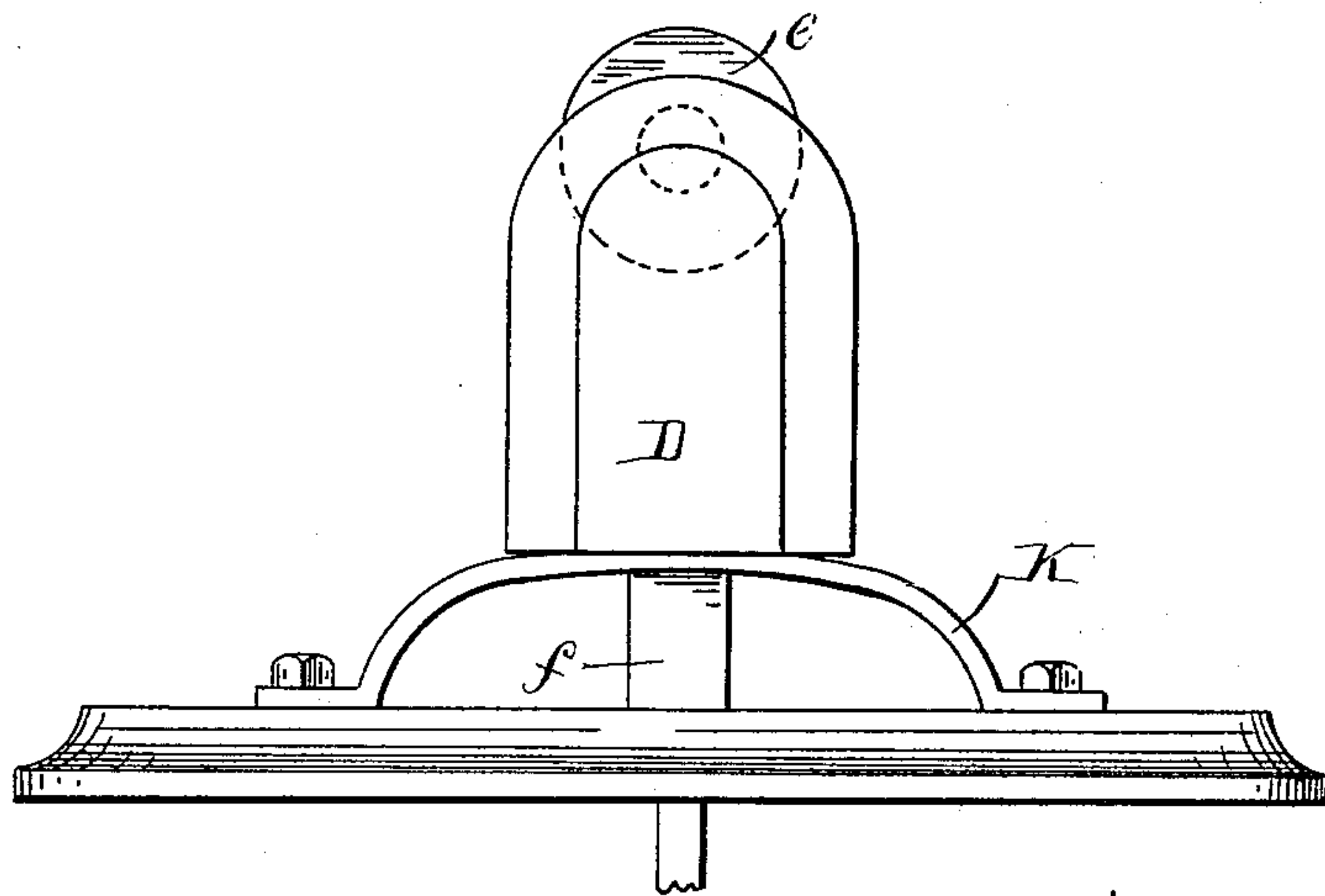


Fig. 6.

WITNESSES:
Chas. S. Wooding
Me. E. Whitcomb

INVENTOR:
Rollin D. Tucker
By C. B. Tuttle
Atty

UNITED STATES PATENT OFFICE.

ROLLIN D. TUCKER, OF LYNN, MASSACHUSETTS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF SEVEN-TWELFTHS TO MANLEY T. POOLER, OF SKOWHEGAN, MAINE, AND THE SUTHERLAND CORRUGATED SEAM COMPANY, OF NASHUA, NEW HAMPSHIRE.

SEAM-FINISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 366,746, dated July 19, 1887.

Application filed February 20, 1885. Serial No. 156,521. (No model.)

To all whom it may concern:

Be it known that I, ROLLIN D. TUCKER, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain Improvements in Seam-Finishing Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to machines for finishing the seams of boots and shoes, and the nature thereof is fully described hereinafter, and specifically pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of the invention. Figs. 2 and 3 are detail views. Figs. 4, 5, and 6 represent detached detail views illustrating the construction of the parts more clearly.

The frame-work of the machine is designated by the letter A, as in Fig. 1. Said frame is made to support the shaft B, which shaft B is journaled to revolve in the frame, as shown, and carries on its front end the cam *a*, to impart a vertical reciprocating movement to the hammer C. Near the bottom end of said hammer is the fulcrum-pin *b*, on which the hammer is rocked sufficiently to impart a slight oscillating motion to the bottom end of the hammer. Under the hammer is located a roll, *e*, which is mounted upon a block, D, which yields against the action of a spring, K. Said roll and block are shown in detail in Fig. 3. The block is provided with a tang or shaft, *f*, that is fitted to permit vertical movement in the bed-plate of the frame, and also with a tongue, *h*, that is arranged in the dovetailed plates H H. This arrangement permits vertical movement of the block, and also allows it to be removed from the machine whenever desirable. Under the said block is a spring, K, that holds the block upward, but which yields to the blow of the hammer C to prevent breakage, and to further adapt the machine to different kinds of work, as hereinafter referred to.

Fig. 2 of the drawings represents a foot, S, that is provided with an opening, 3, to receive the end of hammer C, and with a slot, 4, to receive and present the seam to the hammer. Said foot is attached to the frame A and extends downward and forward over the roll

e, as fully indicated by dotted lines in Fig. 1. Said foot is thickened at its bottom end, as indicated in Fig. 2, and the groove 4, starting at the end of the foot, opens through the foot before entering the opening 3, as shown.

In operating the machine, the workman is to hold the material in his hands and present the same to the machine, allowing it to pass in between the foot S and roll *e* with the two raw edges of the seam located in the groove or channel 4 and the face of the seam bearing upon the roll, and in this position it is carried forward to the hammer C. The channel 4 should be sufficiently wide to hold the edges of the seam nearly upright, and thus to present them to the hammer, and the hammer, striking downward, opens the edges of the seam and drives downward upon the roll *e*, thus breaking (in some degree) the fibers of the leather and jamming and flattening the seam.

In some classes of boot and shoe work it is customary to put a welt or stay in the seam and allow it to project outward slightly to impart a finish and give strength to the work, and when finishing such seams it is desirable to avoid damaging the welt. To this end I provide a groove, 5, in the roll *e*. Into this groove or recess the welt may be depressed by the hammer, and will thus escape being damaged. It should be understood, however, that in finishing plain seams this groove or recess is not needed, and a smooth surface is all that is required in such cases. The oscillating movement of the hammer end, as above described, operates to feed forward the work in the direction of the arrow, and in some classes of goods it is necessary to have the roll *e* revolve, while in other cases it is better to have the roll *e* stationary. To this end I provide a set-screw in the roll, thus allowing it to be fastened when desired. This, too, will explain why I use the roll, as in many cases a smooth fixed plate would do; but by using the roll I make the machine adapted to a wider range of work.

The spring K yields to the action of the hammer to prevent breakage, and the tension of said spring increases as it is pressed downward, thus allowing the hammer to strike

harder when a piece of thick material is being pounded, and in this way the machine adapts itself to the various kinds of work required. Extending downward from the tang *f* is a rod, 5 8, to receive the foot of the operator whenever it is desired to depress the block for the purpose of introducing to or removing a piece of material from the machine. I am aware that the oscillating movement of the lower end of 10 the hammer, as described, for the purpose of feeding forward the material is not strictly necessary, as the material can be moved through the machine by hand; yet I prefer to use the hammer, as stated. The foot *S* may be 15 allowed to yield upward slightly, though I hardly think this will be desired—certainly to no great extent. The spring *K* may be composed of one or more leaves, if desired, so as to rapidly increase the tension thereof when 20 depressed. It will of course be understood that the hammer *C* had better strike upon the top of roll *e* as nearly as possible, and the position of the foot *S* may be easily found by simply keeping this fact in mind.

25 I am aware that it is not new to provide rubbing devices for seam-finishing machines with mechanism for supporting and feeding the material to be acted upon, and also that machines for beating leather have heretofore 30 been made with a fixed supporting stand or base and a reciprocating arm carrying a hammer under spring tension, whereby a yielding blow is given to the leather seams, and I do not broadly claim such, my invention consist- 35 ing in providing a yielding support for the material and an unyielding hammer adapted to apply positive blows in rapid succession to the seams.

I claim as of my invention—

40 1. In a seam-finishing machine, the combination of a vertically-moving hammer adapted to apply positive blows in rapid succession to the seam, with a yielding support for the material, substantially as described.

45 2. In a seam-finishing machine, the combination, with a vertically-moving hammer adapted to apply positive blows in rapid succession to the seam, of a guide adapted to present the seam to said hammer, and a 50 yielding support for the material or seam, substantially as described.

3. In a seam-finishing machine, the combination of a vertically-moving hammer adapted to apply positive blows in rapid succession to the seam, mechanism for oscillating the lower 55 end of said hammer to feed the material forward, a guide adapted to present the seam to said hammer, and a yielding support for the material or seam, substantially as described.

4. In a seam-finishing machine, the combination of a pounder, means, consisting of a 60 shaft, *B*, and a disk, *a*, mounted eccentrically on said shaft and fitted to the pounder-shank, for giving to said pounder a positive reciprocation vertically, means, substantially as described, for oscillating the lower end of the 65 pounder to feed the material forward, and mechanism for supporting the material under the pounder, substantially as described.

5. In a seam-finishing machine of substantially the construction described, and in combination with a reciprocating pounder or hammer for pounding the edges of the seam, the 70 vertically-movable block *D* and spring *K*, said spring being adapted to resist the downward movement of the block, substantially as described. 75

6. In a seam-finishing machine, the combination, with the vertically-reciprocating hammer or pounder, of the curved roll placed 80 beneath the hammer to support the seam to be operated upon, and the foot *S*, interposed between the pounder and the roll, said foot *S* having an opening, 3, for the admission of the hammer end, and a narrow opening, 4, adapted 85 to hold the seams upright and to present them in proper position to the hammer, substantially as described.

7. In a seam-finishing machine, the combination, with a vertically-reciprocating pounder 90 the lower end of which is adapted to be oscillated, of a roll, *e*, mounted upon the block *D*, which rests upon the spring *K*, and a dovetailed block, *h*, secured to the block *D* and adapted to slide in a corresponding socket, *H*, 95 substantially as described.

ROLLIN D. TUCKER.

Witnesses:

SEYMOUR RUTH,
C. B. TUTTLE.