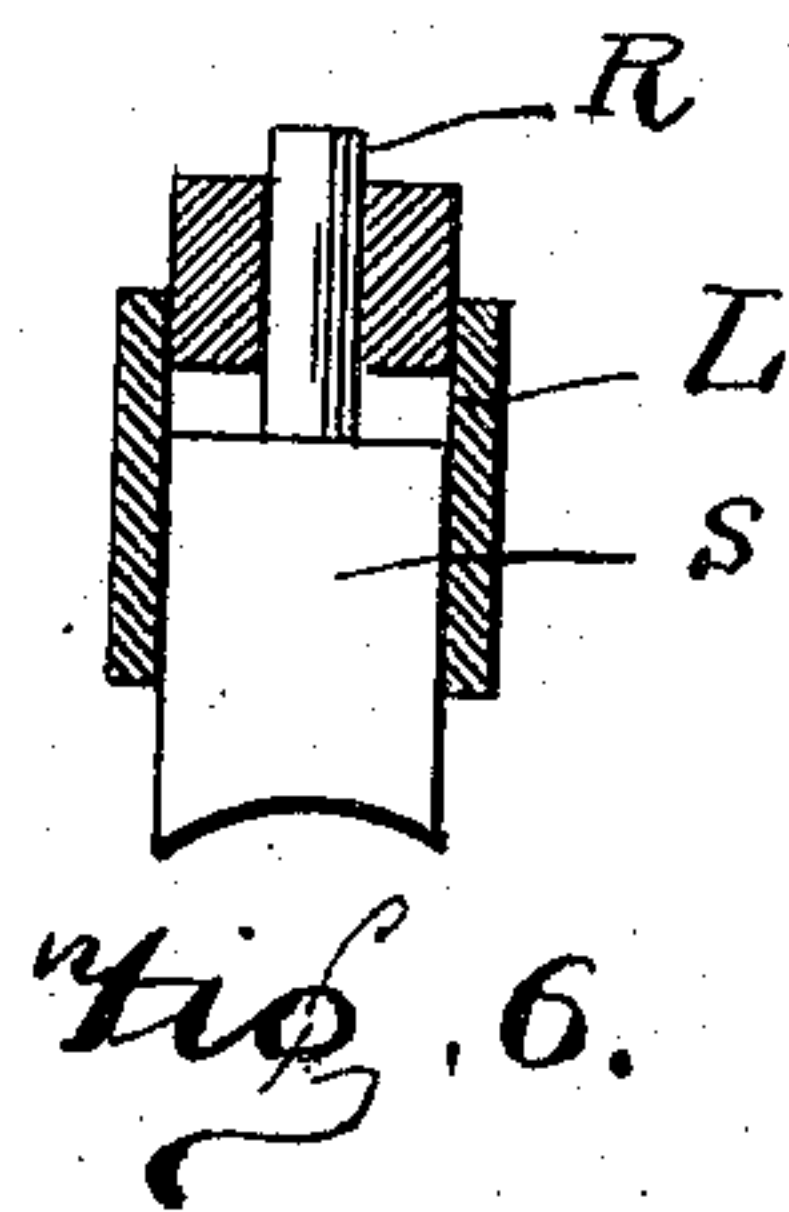
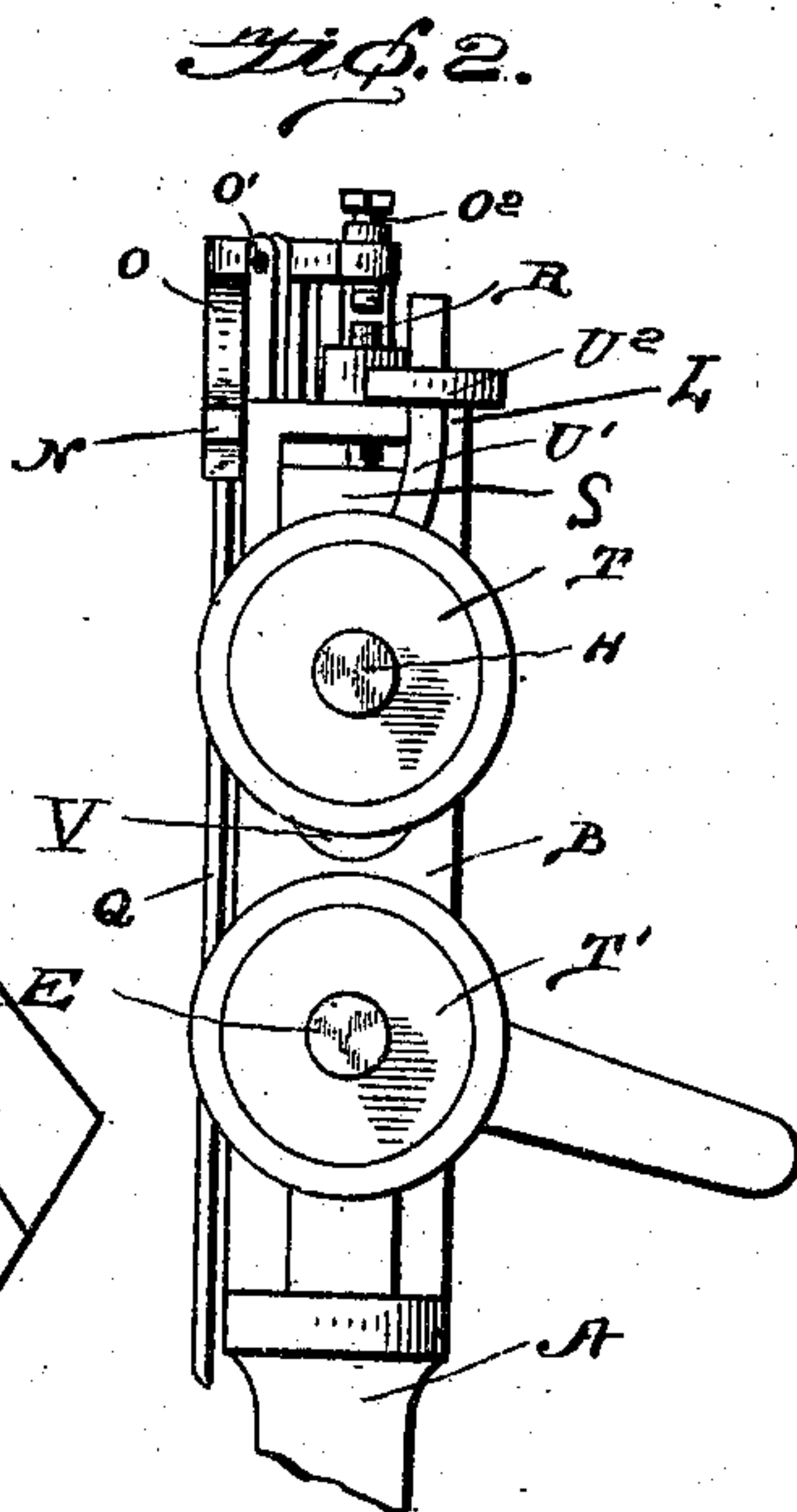
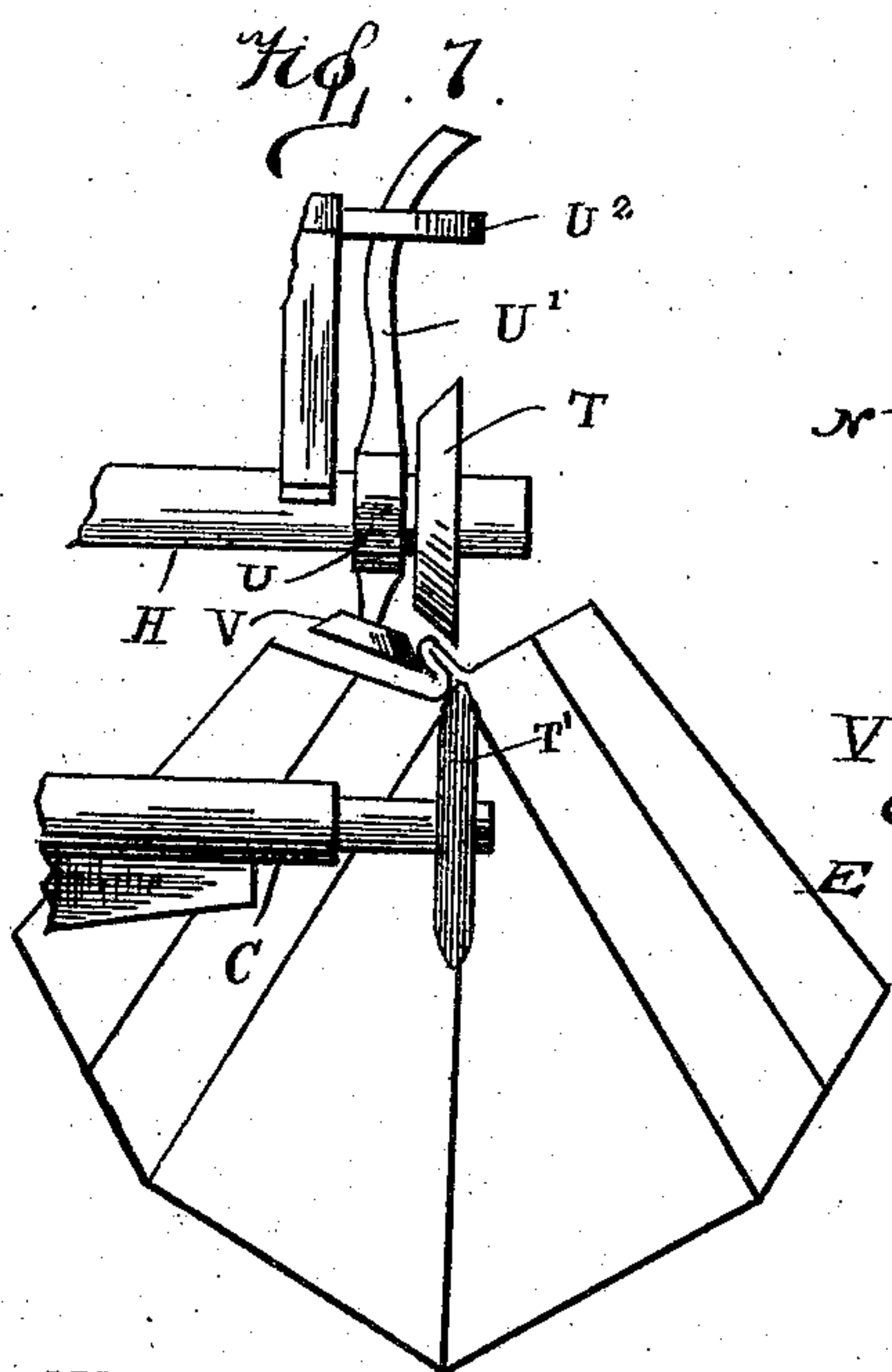
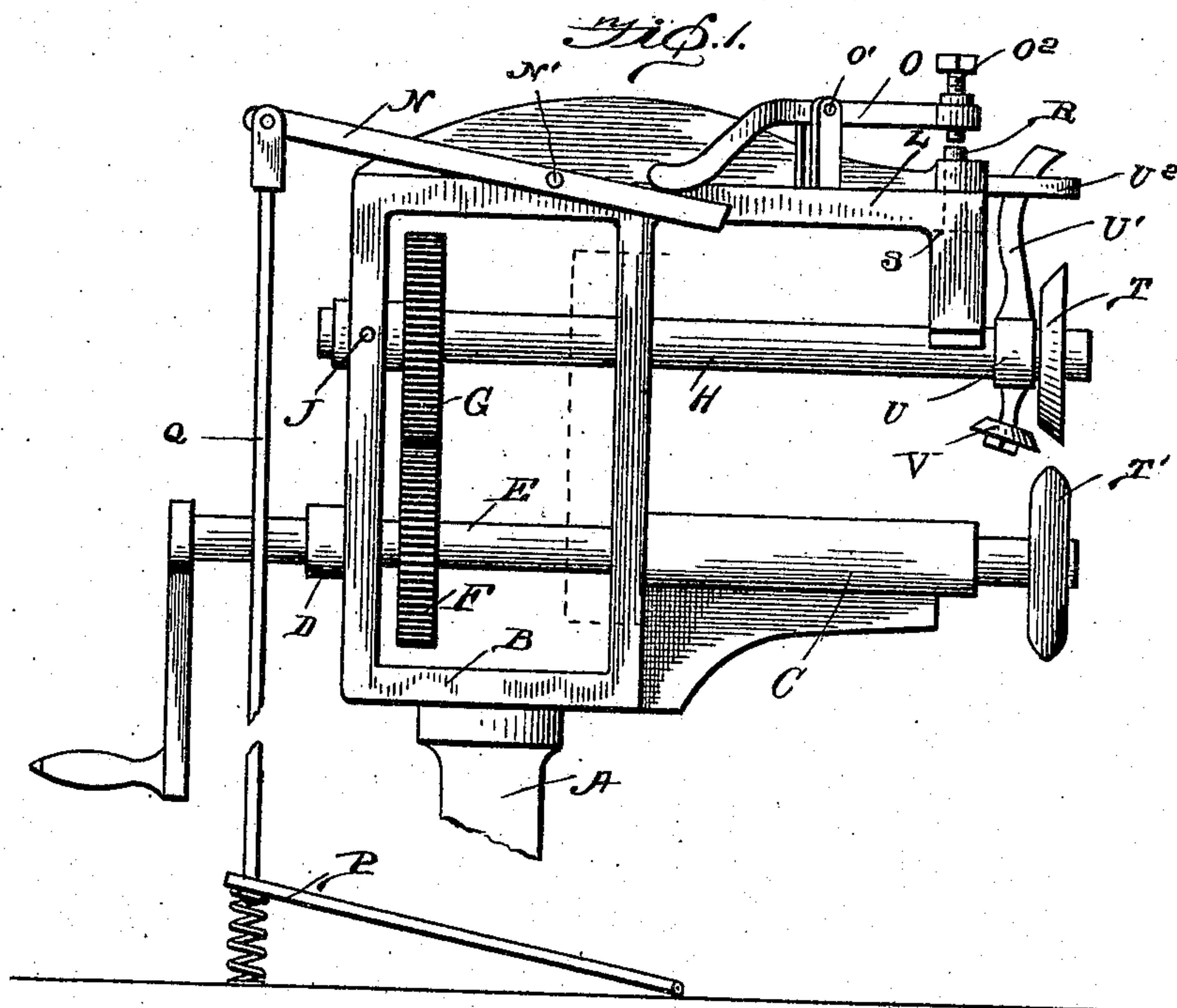


No. 848,053.

PATENTED MAR. 26, 1907.

A. G. SCHERER.
MACHINE FOR SEAMING TOGETHER THE EDGES OF SHEET METAL SECTIONS.
APPLICATION FILED DEC. 18, 1902.

2 SHEETS—SHEET 1.



Witnesses
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2 SHEETS—SHEET 2.

Fig. 3.

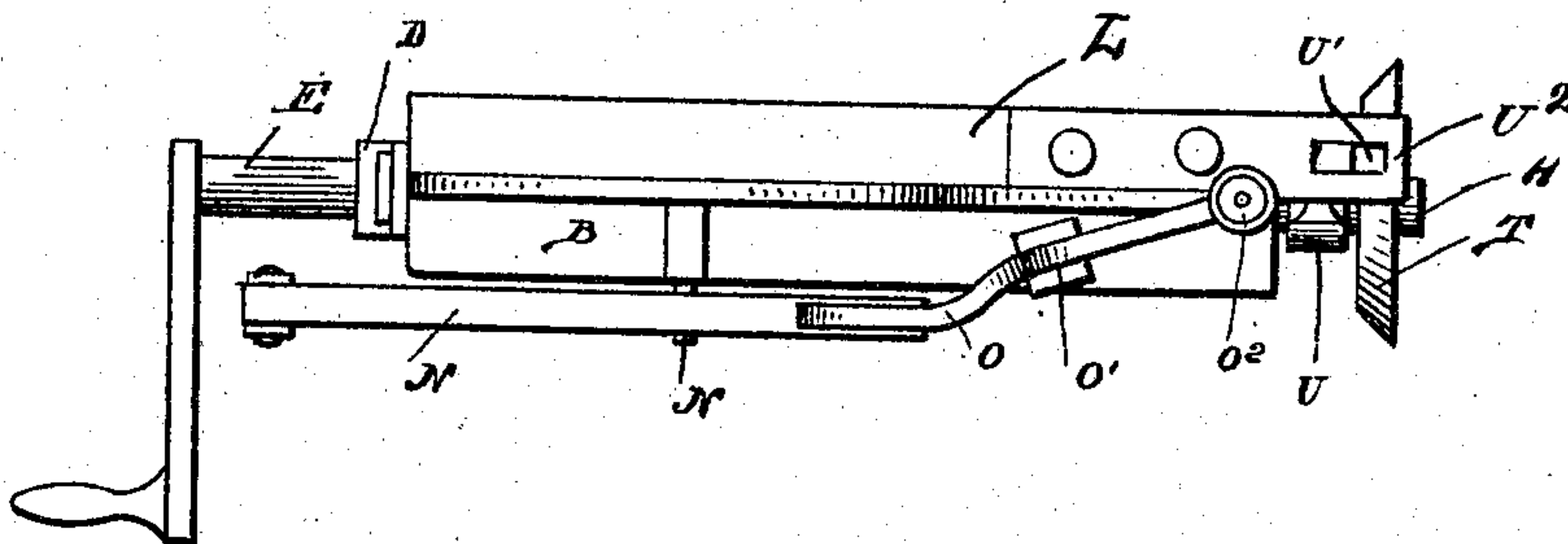


Fig. 4.

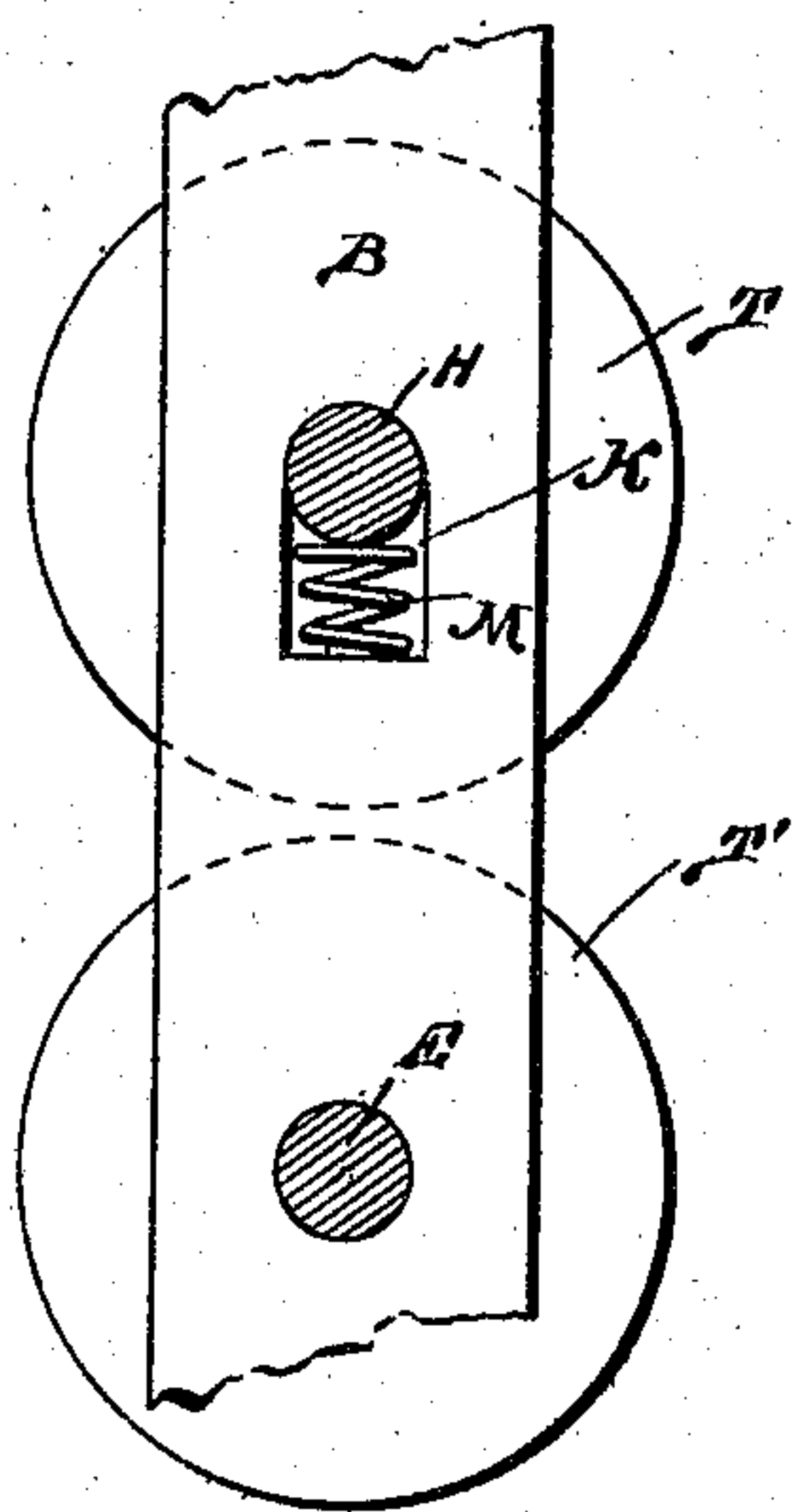
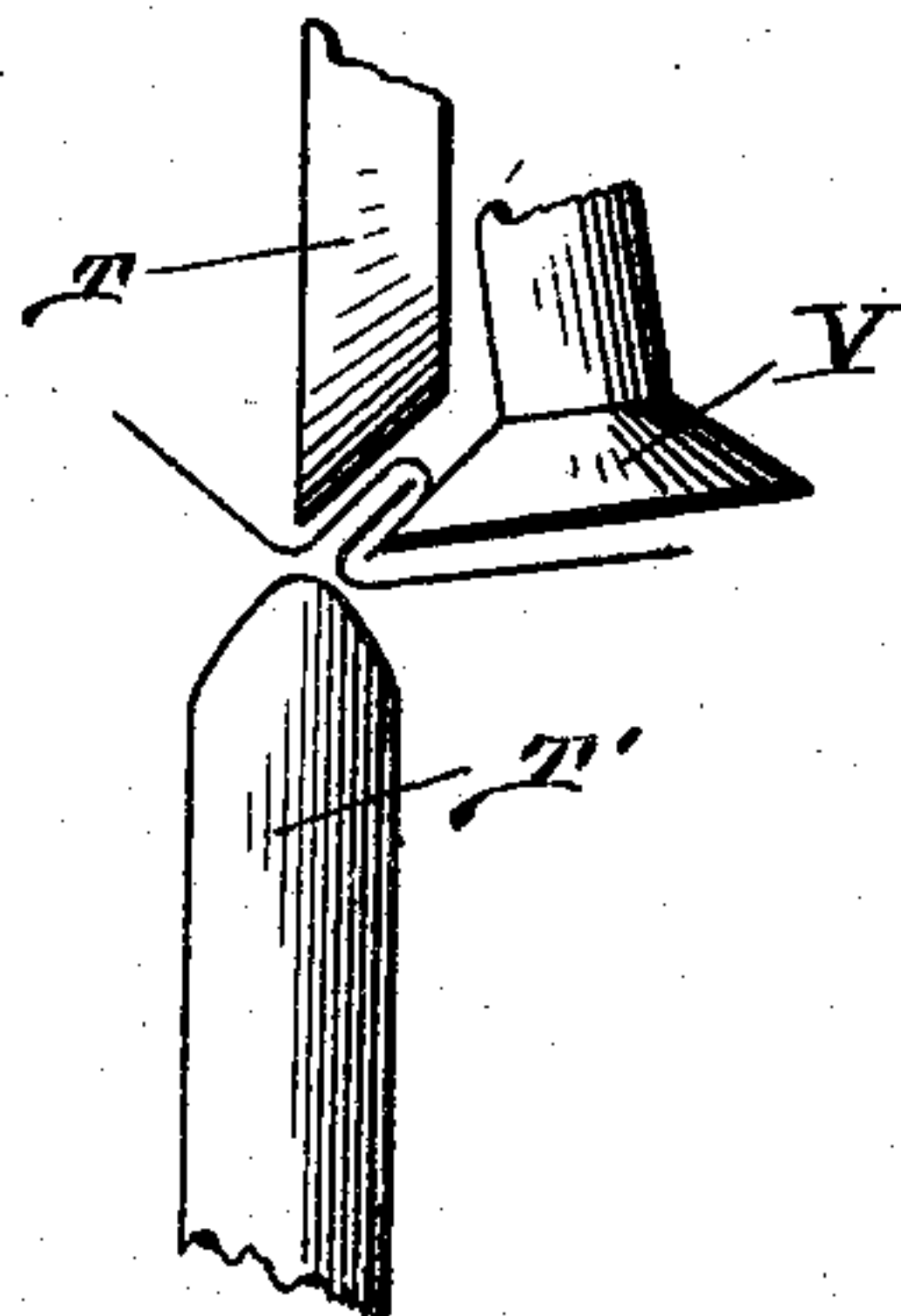


Fig. 5.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR SEAMING TOGETHER THE EDGES OF SHEET-METAL SECTIONS.

No. 848,053.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed December 18, 1902. Serial No. 135,799.

To all whom it may concern:

Be it known that I, ALBERT G. SCHERER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Seaming Together the Edges of Sheet-Metal Sections, of which the following is a specification.

This invention relates to improvements in machines for seaming together the edges of sheet-metal elbow-sections, and has for its object the provision of a simple and durable mechanism for accomplishing this purpose—that is, after the sections have been formed by a machine similar to the machine shown in the patent issued to G. R. Moore, September 19, 1846, No. 4,768, my machine herein set forth is employed to securely press the seams of the sections together.

To attain these objects, the invention consists of a machine of this character embodying novel features of construction and combination of parts substantially as disclosed herein.

In the accompanying drawings, Figure 1 is a side elevation of the complete machine. Fig. 2 is an end view thereof, showing the relation of the bending-disks. Fig. 3 is a top plan view thereof, and Figs. 4, 5, and 6 are detailed views of minor parts of the machine. Fig. 7 shows a portion of the bending mechanism and an elbow or pipe being operated thereupon.

Referring to the drawings, A designates a standard or support carrying an open rectangular frame B. Supported by the frame and projecting outwardly therefrom is the hollow arm C, whose hollow or opening aligns with the opening of the bearing D, and both provide a bearing or journal for the shaft E, to whose inner end is secured an operating-handle, while upon the outer end is carried and revoluble therewith a crimping-wheel T'. Carried upon this shaft in the open frame is a gear F, which is adapted to mesh with the gear G and convey motion to the shaft H, pivotally secured to the open frame at J. The shaft H passes through an elongated slot in the outer portion of the open frame and is held upward by means of the spring M and is forced downward when desired by means of the levers N and O, operated by the treadle P through the medium of the rod Q. These levers N and O are pivoted,

respectively, at N' and in the bracket O', the lever O having an adjustable set-screw or pin O² in its outer end to engage the pin R, which forces down a movable block S, which is clearly shown in Fig. 6 of the drawings, and which presses upon the outer end of the shaft H, causing the wheel T to move downward into close contact with the wheel T', carried by the shaft E. The levers are pivoted to the arm or bracket integral with the frame B. The wheel T is provided with an upwardly-inclined bevel, while the wheel T' is provided with a double or substantially V-shaped periphery in cross-section. Mounted upon the shaft H and surrounding the same is a collar U, having upon its upper end a slanting arm or lever U', which is slidingly mounted in the slot of the plate U², secured upon the top of the arm L. This collar U is loosely mounted upon the shaft H, so as to be rocked by the slot of the plate U² as the shaft is raised or lowered, thus moving the bevel-wheel V toward or away from the wheel T, as may be desired. When the shaft is depressed, it carries down with it the lever U', the crooked end of which, working through the plate U², will throw the top of the lever away from the wheel T and at the same time move the small bevel-wheel V toward the space between the wheels T and T'. The edges of the sections of sheet-metal elbows to be operated upon are brought between these wheels, as shown in Fig. 5 of the drawing, and the wheels are revolved by means of the handle and gears so as to make a sealed joint which is practically both air and water tight.

The portion of the machine which I claim, broadly, new as my invention, is the means for depressing the upper shaft and the lever U', mounted upon said upper shaft by the collar U, slidingly mounted in the link U², secured upon the top of the arm L in such a manner that upon the depression of the upper shaft the small bevel-wheel V is thrown into close combination with the bevel-wheels T and T'.

From the foregoing description, taken in connection with the machine, the operation of the invention is readily understood and its numerous advantages fully appreciated, and

I claim as my invention the following:

1. In a machine of this character the combination of a frame, a lower shaft mounted

therein, so that its relative position is stationary, another shaft located above and having its outer end free and its inner end pivoted, means for transmitting power from the lower shaft to the upper shaft, coacting crimping-wheels carried on the outer ends of said shafts, mechanism for moving the outer end of the upper shaft so that the upper crimping-wheel can be moved to or from the lower crimping-wheel, a lever having a collar intermediate of its ends loosely surrounding the portion of the upper shaft beside the crimping-wheel and adapted to be moved to and from the crimping-wheels, a crimping-disk carried by the lower end of said lever adapted to be projected between the crimping-wheels when they are coacting, and means carried by the top of the frame adapted to receive the upper end of the lever so that when the shaft is moved downward the crimping-disk is moved toward the coacting crimping-wheels, for the purpose set forth.

2. In a machine of this character, the combination of a frame, a shaft mounted in the lower portion thereof so that its relative position is stationary, an upper shaft pivotally mounted in the frame adapted to receive motion from the lower shaft, coacting crimping-wheels carried by the outer ends of said shafts, a lever provided with an enlarged collar intermediate of its ends loosely surrounding the end of the upper shaft near the crimping-wheel, a crimping-disk carried upon the lower end thereof adapted to be projected between the crimping-wheels when coacting,

means carried by the frame adapted to surround the upper end of the lever, whereby as the upper shaft is raised or lowered the lever is tilted to withdraw or project the crimping-disk with relation to the crimping-wheels, and mechanism for forcing the crimping-wheels into engagement with each other and simultaneously moving the crimping-disk toward the junction of the coacting crimping-wheels.

3. In a machine of this character, the combination of a frame, a shaft mounted in the lower portion thereof so that its relative position is stationary, an upper shaft pivotally mounted in the frame adapted to receive motion from the lower shaft, coacting crimping-wheels carried by the outer ends of the shafts, a lever having a collar intermediate of its ends loosely surrounding the upper shaft and having an outwardly-curved upper end, a crimping-disk carried by the lower end of the lever, a slotted plate through which the curved end of the lever passes so that as the upper shaft is moved the curved end slides through the slot and causes the crimping-disk to move toward or from the junction of the wheels, and means for moving the upper shaft toward or from the lower shaft as set forth.

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

ALBERT G. SCHERER.

Witnesses:

ELIZABETH LANGE,
JOSEPH W. REES.