

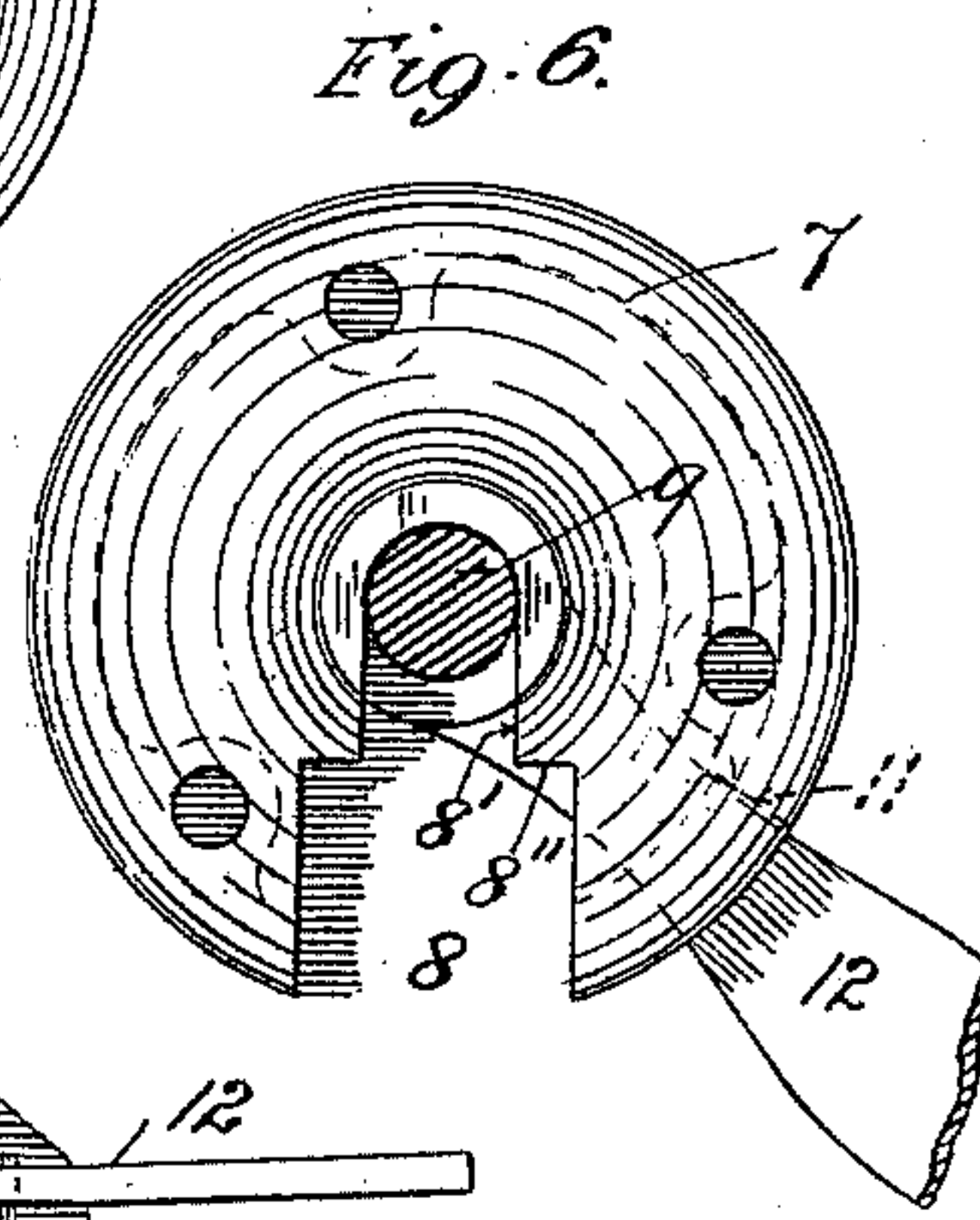
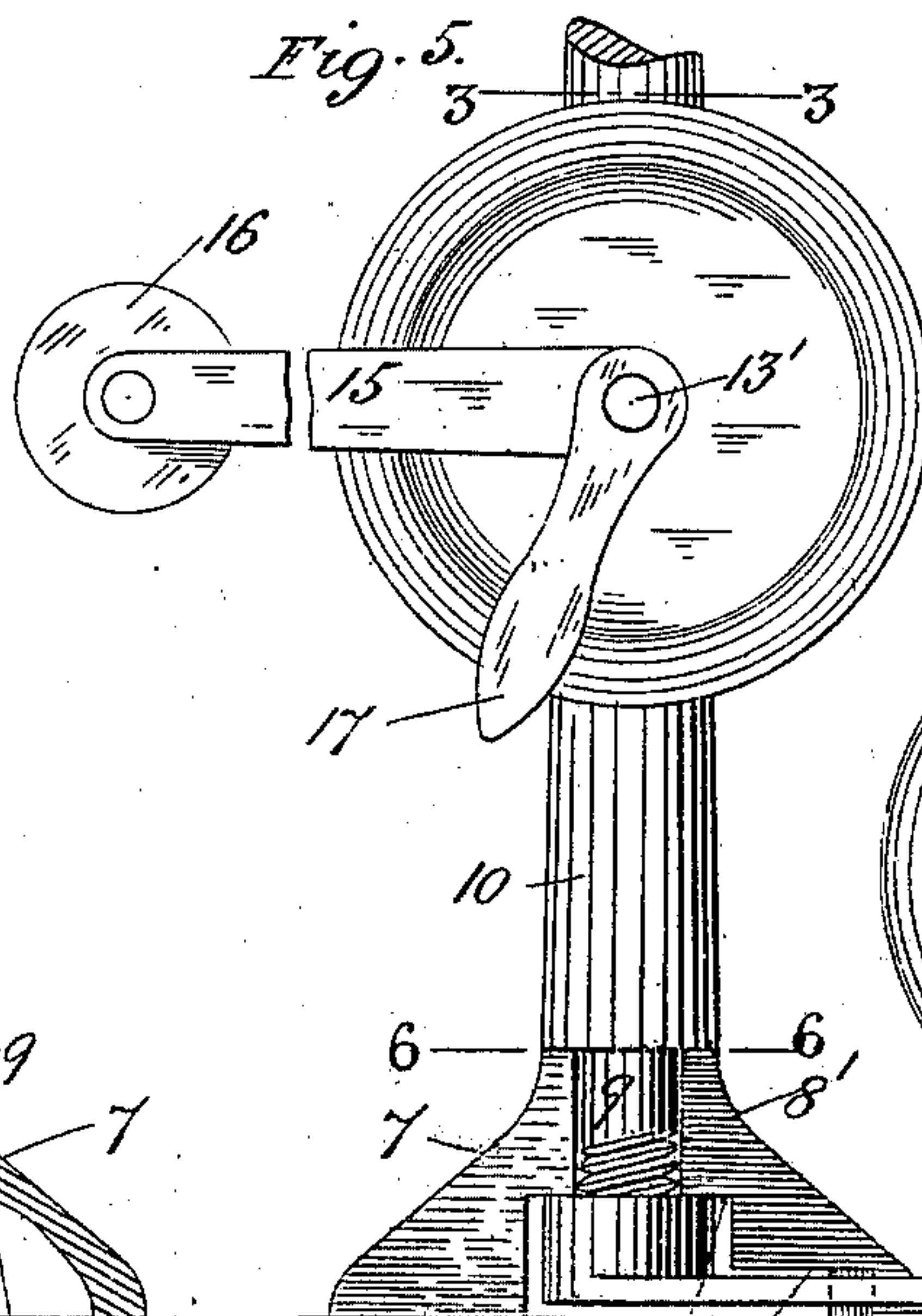
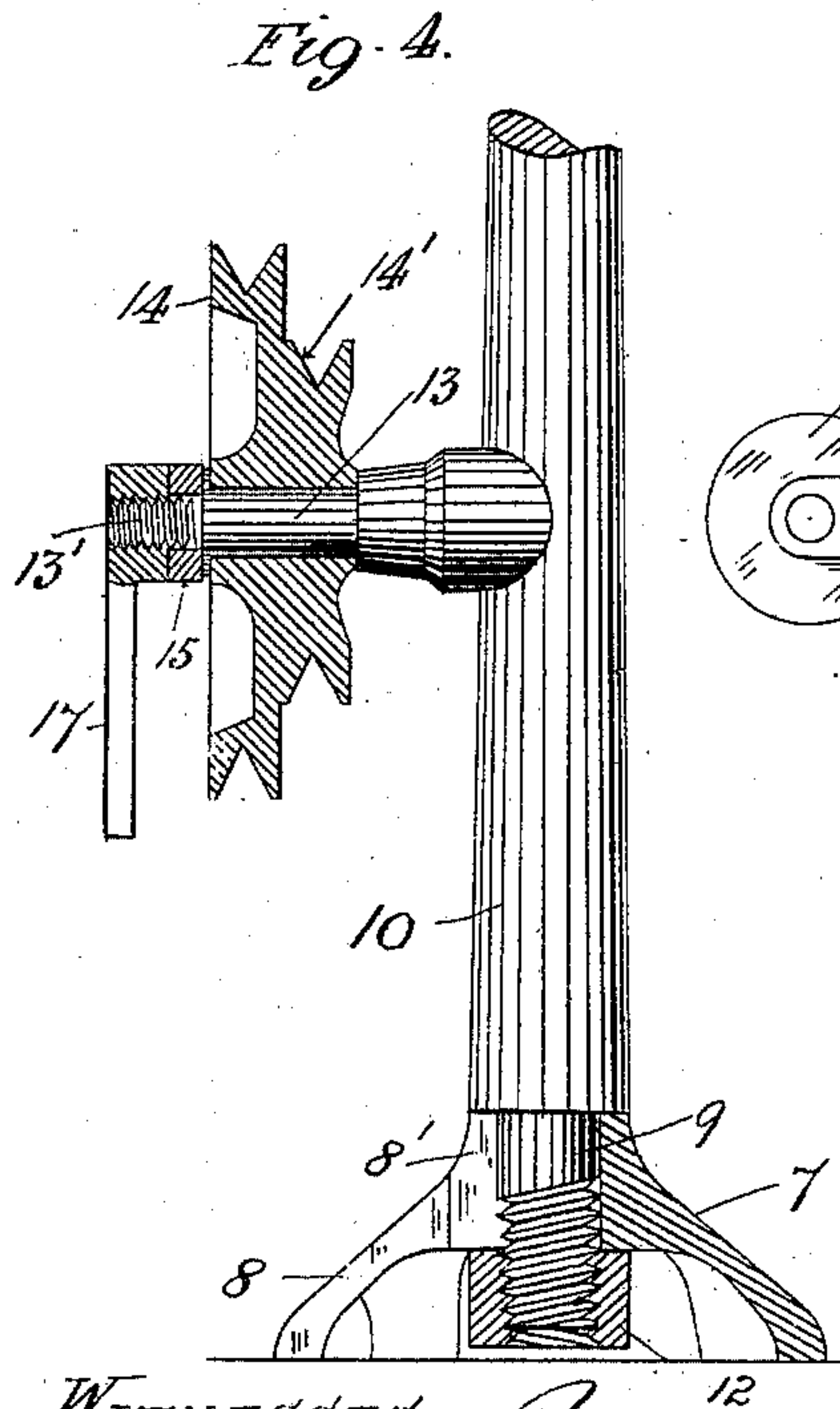
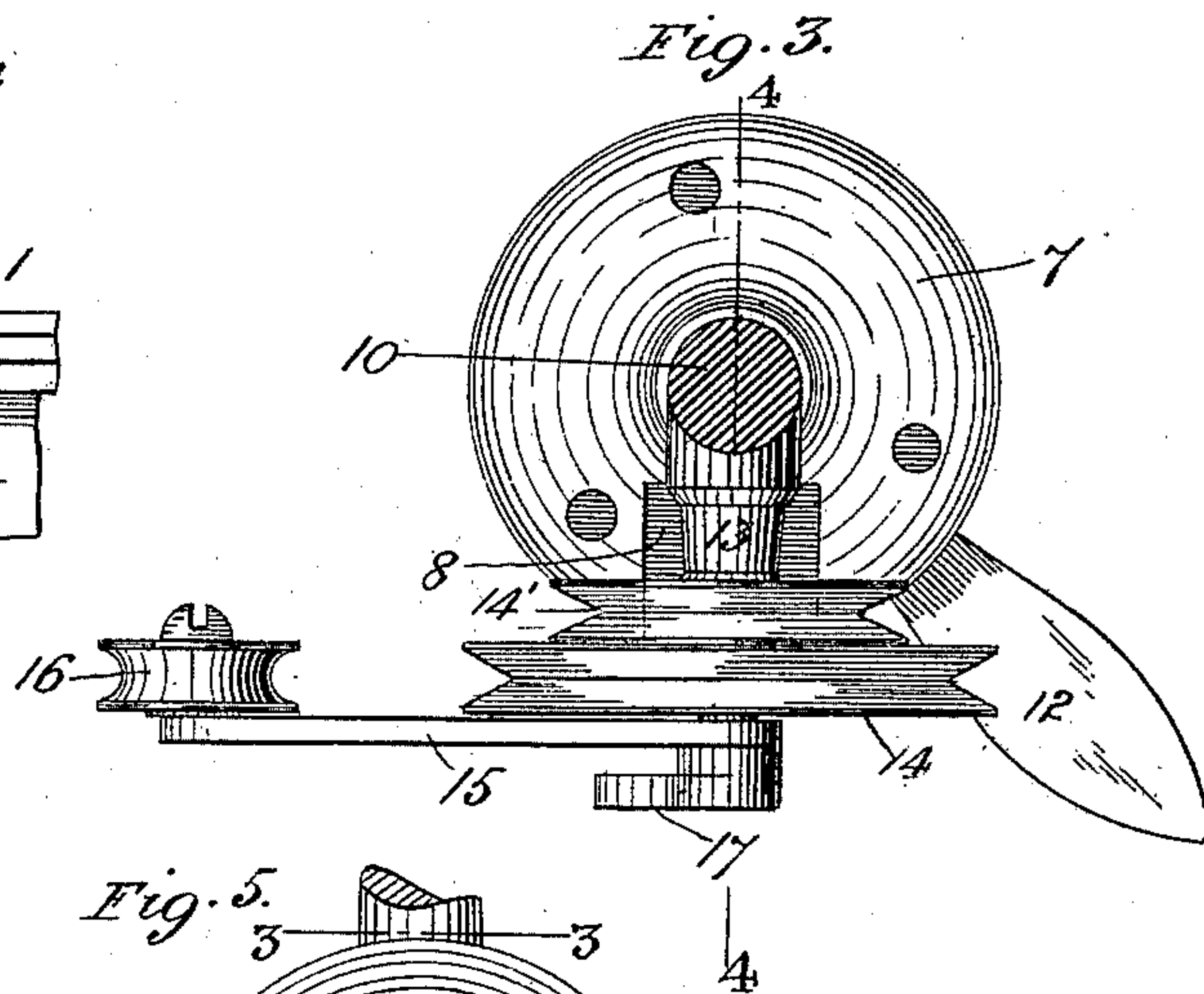
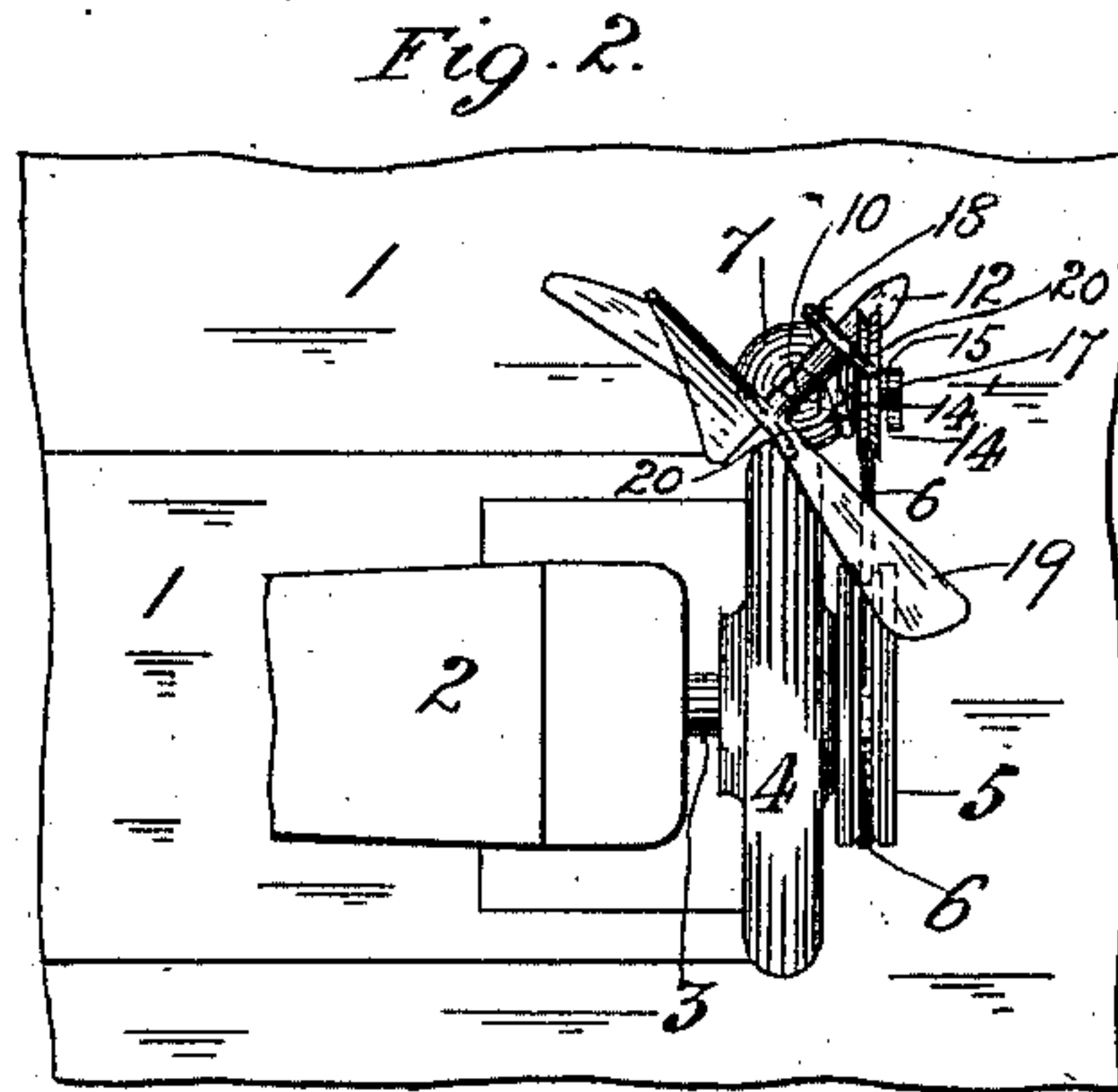
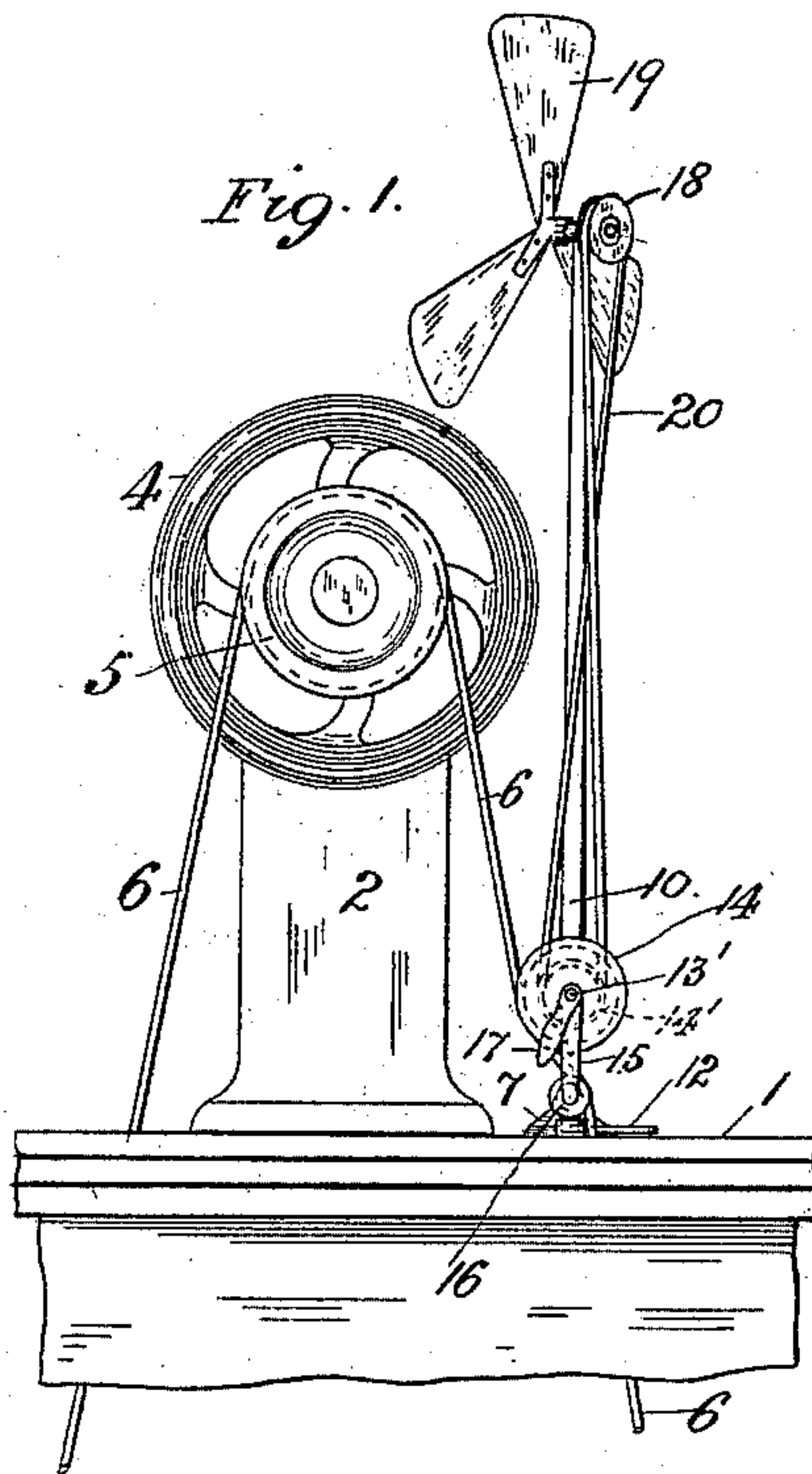
No. 685,990.

Patented Nov. 5, 1901.

C. E. KLOTZBUECHER.  
FAN ATTACHMENT FOR SEWING MACHINES.

(Application filed Feb. 6, 1901.)

(No Model.)



WITNESSES  
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# UNITED STATES PATENT OFFICE.

CARL E. KLOTZBUECHER, OF ST. LOUIS, MISSOURI.

## FAN ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 685,990, dated November 5, 1901.

Application filed February 6, 1901. Serial No. 46,199. (No model.)

*To all whom it may concern:*

Be it known that I, CARL E. KLOTZBUECHER, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Fan Attachments for Sewing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to fan attachments for sewing-machines; and it consists in the novel construction and arrangement of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is an end elevation of the upper portion of a sewing-machine, showing my invention applied thereto. Fig. 2 is a top plan thereof. Fig. 3 is a horizontal section on line 3 3 of Fig. 5, showing in plan the supporting-base and pulleys and all parts below said section-line. Fig. 4 is a vertical section on line 4 4 of Fig. 3, the standard being in elevation. Fig. 5 is an elevation of the lower portion of the device looking toward the face of the pulley carried thereby; and Fig. 6 is a section on line 6 6 of Fig. 5, taken just below the standard proper.

The object of my invention is to provide the ordinary sewing-machine with a fanning attachment in which the fan may be operated from the drive-shaft of the machine during the running of the latter, the attachment being readily removable when no further use therefor arises.

A further object is to construct a device which will be simple, durable, one capable of maximum efficiency, and one possessing further and other advantages better apparent from a detailed description of the invention, which is as follows.

Referring to the drawings, 1 represents the bed of the machine; 2, the arm; 3, the drive-shaft; 4, the fly-wheel, and 5 the belt-pulley carried thereby, as usual. The belt 6 passes over the pulley 5, through the bed, and over the lower wheel. (Not shown.)

The present attachment comprises a base 7, made in the form of a hollow bell and permanently secured to the bed of the machine by screws. The wall of the said base is provided with a radially-disposed cut-away portion 8 8', having an offset 8'', the portion 8'

allowing for the free passage of the smooth portion of the reduced screw-threaded extension 9 of the standard 10, the base of the latter being adapted to rest upon the upper circular edge of the base 7. The lower edge of the base, adjacent to the cut-away portion 8, is provided with a notch 11, designed for the reception of the swinging locking arm or lever 12, whose inner screw-threaded end is passed over the screw-threaded extension 9. By rotating the arm 12 to the full limit of the notch 11 the extension 9 and standard 10 are drawn downward, thereby forcing the bottom of the standard firmly against the upper edge of the base 7 and locking the parts. By swinging the arm 12 toward the cut-away portion 8—that is to say, by unscrewing it, as it were—the tendency will be to loosen the standard from the base, when the former can be withdrawn radially through the cut-away portion 8 8' and removed, it being understood that the base 7 remains as a fixture on the bed of the machine. The arm 12 acts on the principle of an ordinary nut.

Projecting from the standard 10 at a point below the belt-pulley 5 is a stud or arm 13, having a terminal or outer reduced screw-threaded portion 13', the smooth portion of the stud having mounted thereon the step-pulley 14 14', and the part 13' having mounted thereon loosely a belt-tightening arm 15, provided with a grooved pulley 16, and the clamping-arm 17, whose fixed end screws over the screw-threads of said portion 13'. The device is so mounted as to cause the adjacent lap of the drive-belt 6 to frictionally engage the pulley 14; but to increase at pleasure the tension or pressure of said belt against said pulley 14 the arm 15 is swung against the belt from the opposite side (see Fig. 1) and when once adjusted is firmly clamped in such position by screwing the arm 17 firmly against it. Thus the tension of the belt 6 against the pulley 14 may be varied at pleasure, and the rapidity of rotation imparted thereto by the operator in running the machine may be also varied. The upper end of the standard 10 has mounted thereon a pulley 18, whose axis of rotation is horizontal and inclines to the axis of the pulley 14 14' at an angle of about forty-five degrees, the opposite end of the shaft of said pulley 18 carrying a fan 19. The plane



of rotation of the fan thereby inclines to the axis of rotation of the drive-shaft 3 (or arm 2, carrying the same) at an angle of forty-five degrees, throwing the air against the operator to the best possible advantage. The pulley 18 is coupled to the pulley 14' by a belt 20, the latter being either crossed or its laps running parallel, according to the direction imparted to the fly-wheel 4. As seen from the drawings, the pulley 14 14' rotates in a plane parallel to the planes of rotation of the fly-wheel 4 and belt-pulley 5, the plane of rotation of the pulley 18 and fan 19 being at an angle of forty-five degrees thereto. This angle of course can be varied, and I do not wish to be understood as limiting myself thereto. The device may further be altered in details without departing from the spirit of my invention.

Having described my invention, what I claim is—

1. In a fan attachment for sewing-machines, a suitable standard, means for detachably securing the same in proximity to the drive-shaft of the machine, a pulley carried by the standard adapted to frictionally engage and be rotated by the drive-belt of the machine, a rotatable fan, and intermediate connections between said pulley and fan for actuating the latter upon rotation of the said pulley, substantially as set forth.

2. A fan attachment for sewing-machines comprising a hollow bell-shaped base having a radial cut-away portion, a notch formed along the lower edge of the bell and communicating with said cut-away portion, a standard having a lower reduced extension having

a smooth and screw-threaded portion, the former being adapted to be received by the upper part of the cut-away portion, a locking-lever passed over the screw-threaded portion of the extension and projecting through the notch, a fan carried by the standard, and intermediate connections between the fan and drive-shaft of the machine for actuating the former upon rotation of the shaft, substantially as set forth.

3. A fan attachment for sewing-machines comprising a standard, means for securing the same to the bed of the machine, a stud carried by the standard, a step-pulley mounted on the stud, a reduced screw-threaded portion forming a part of the stud, a swinging belt-tightening arm depending from said portion, a pulley at the end of the arm, a clamping-lever passed over the outer end of the screw-threaded portion of the stud, a pulley at the upper end of the standard, a fan secured to the shaft of said pulley, the latter as well as the fan being disposed, and rotating in a plane making an angle with the plane of rotation of the step-pulley, a belt connecting the step-pulley with the fan-pulley, a drive-belt having one lap passed between the step-pulley and the idler-pulley at the end of the belt-tightening arm, the parts operating substantially as and for the purpose set forth.

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

CARL E. KLOTZBUECHER.

Witnesses:

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