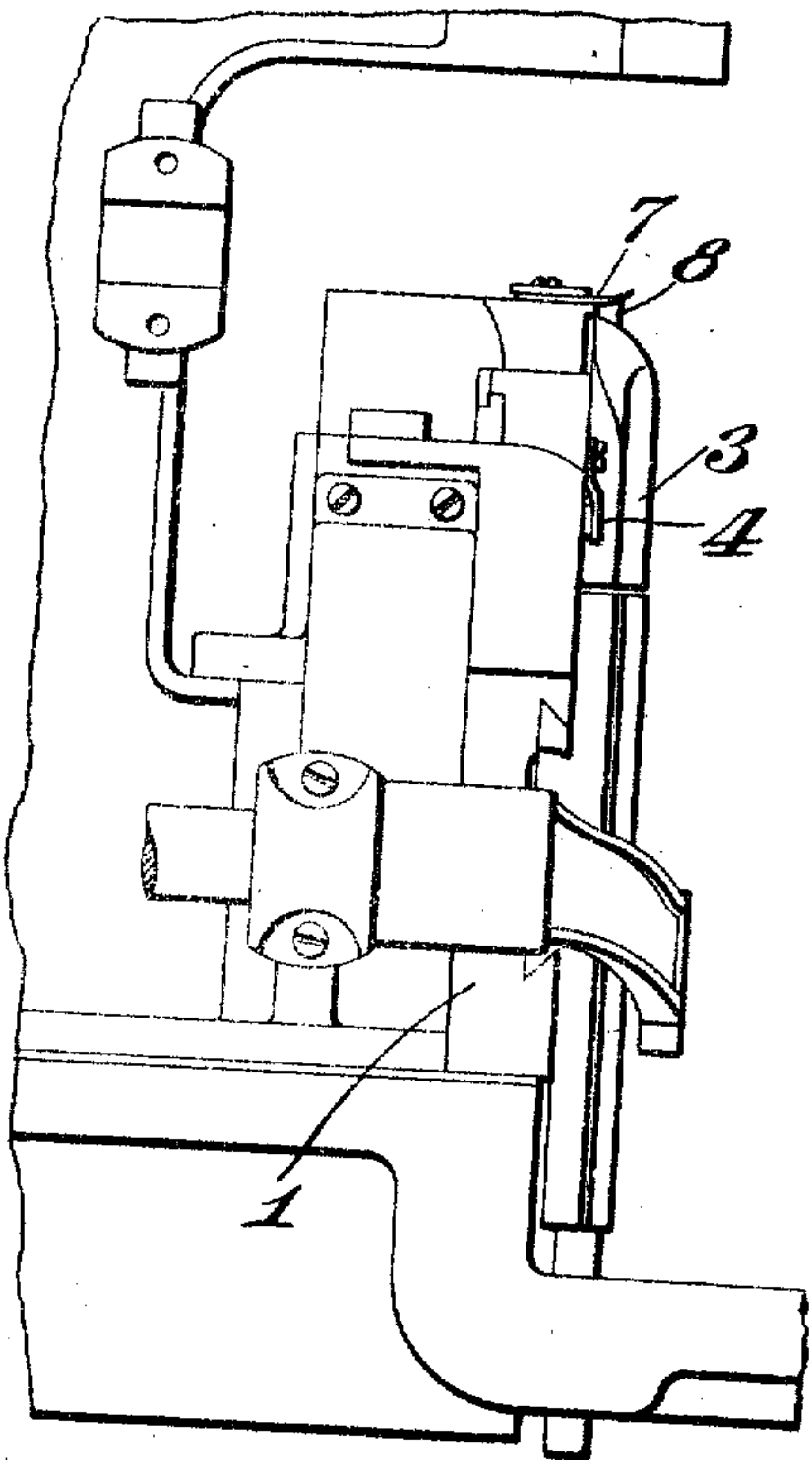


No. 833,954.

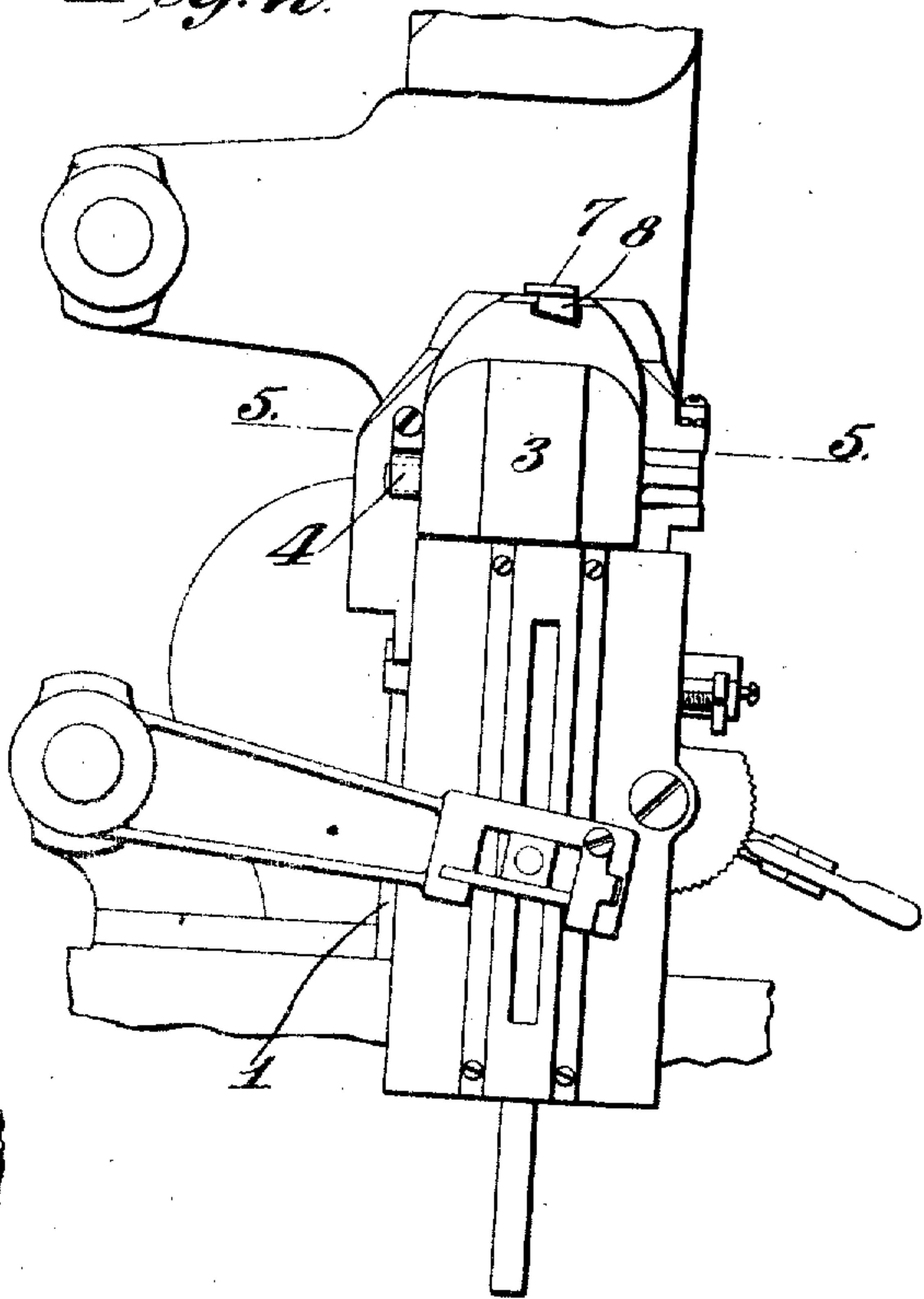
PATENTED OCT. 23, 1906.

G. L. CORCORAN & G. A. DOBYNE.  
NEEDLE AND SHUTTLE GUARD FOR SEWING MACHINES.  
APPLICATION FILED AUG. 4, 1905.

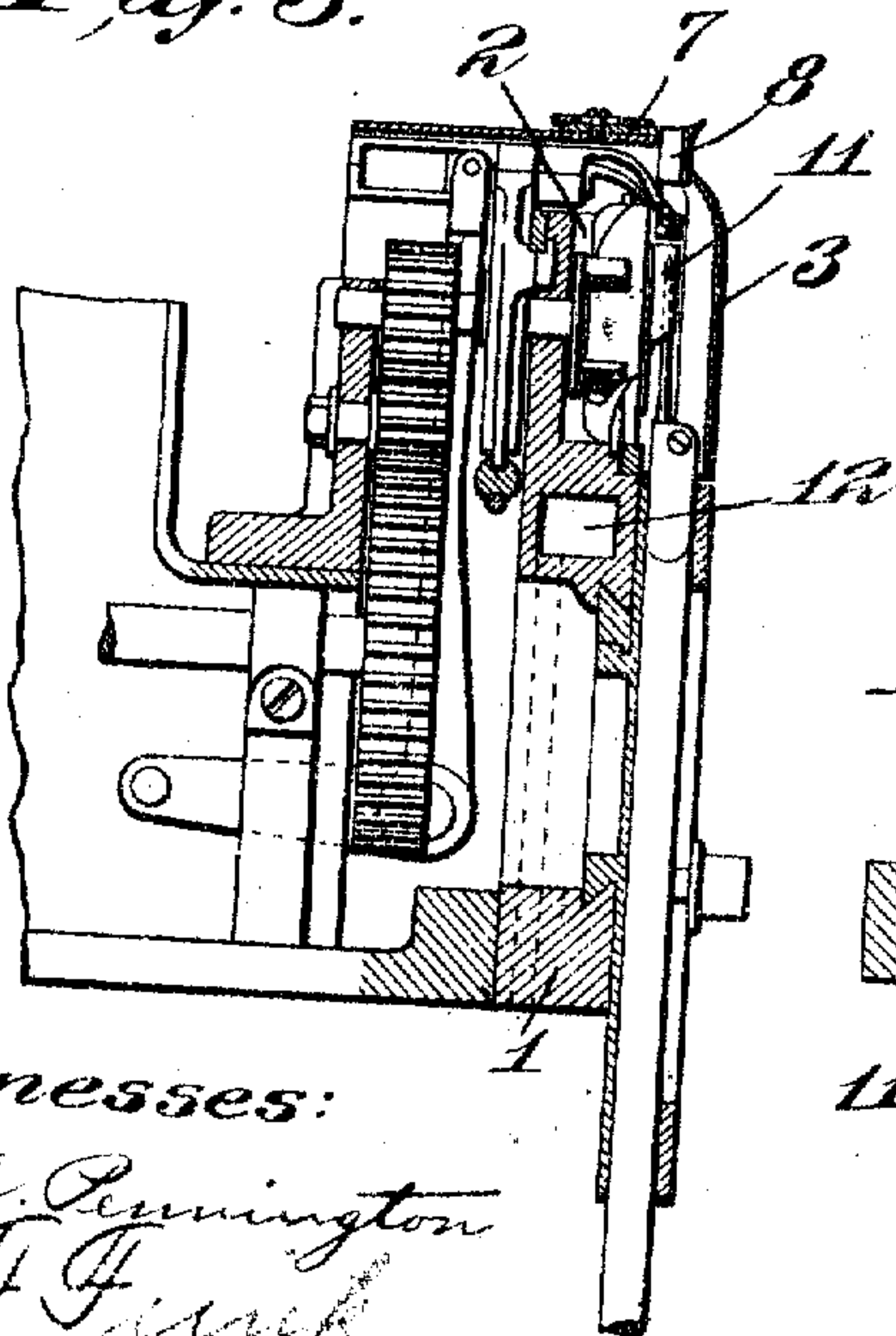
*Fig. 1.*



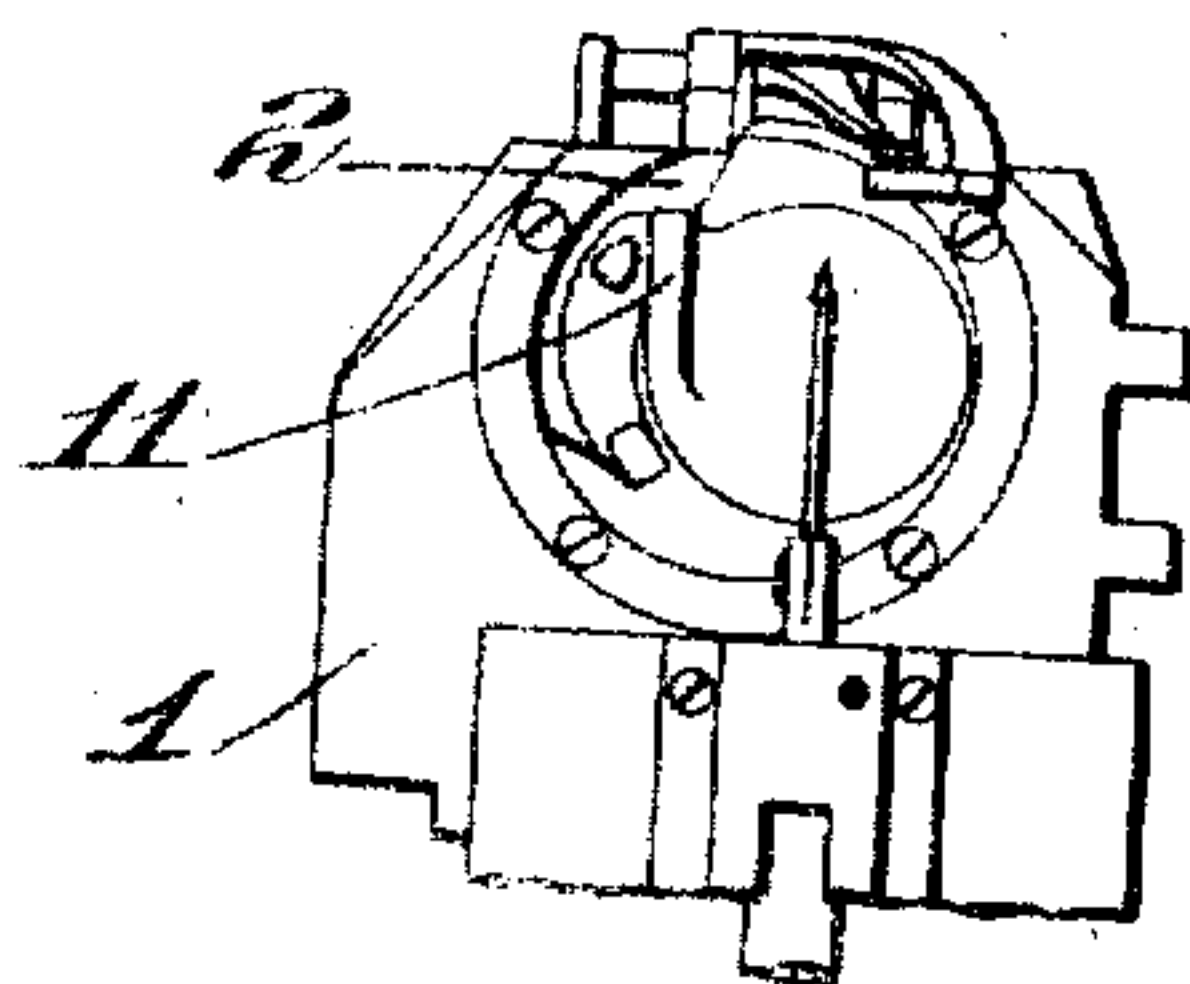
*Fig. 2.*



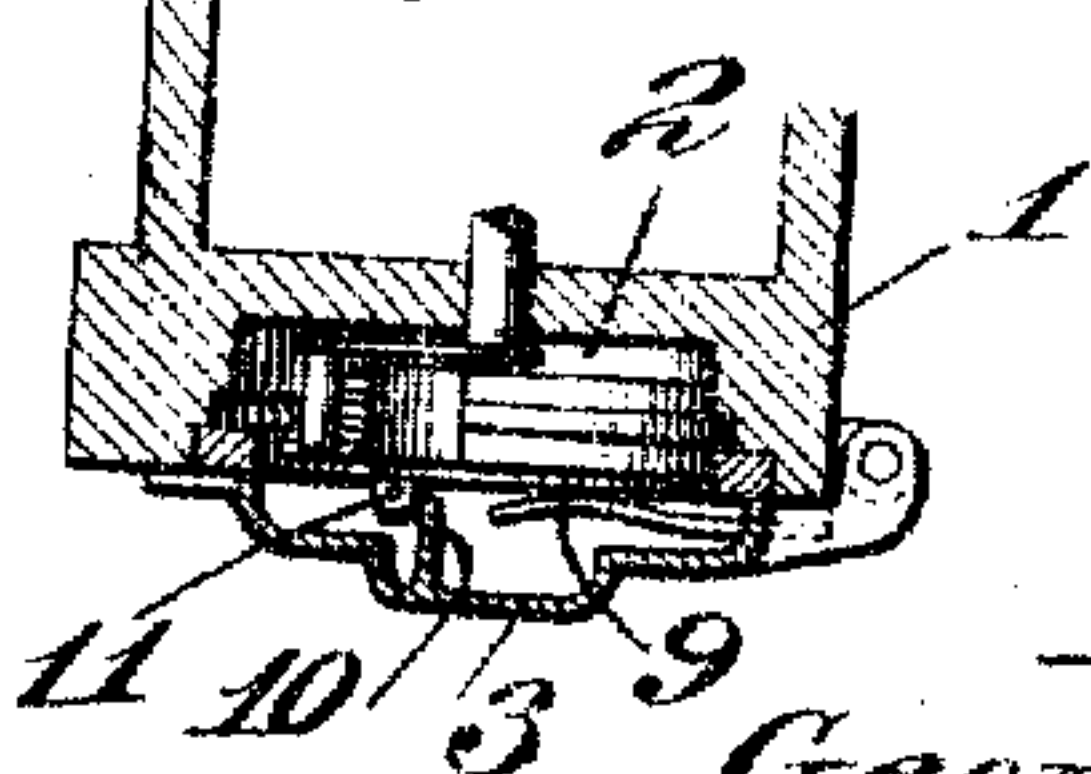
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses:

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# UNITED STATES PATENT OFFICE.

GEORGE L. CORCORAN AND GEORGE A. DOBYNE, OF ST. LOUIS, MISSOURI, ASSIGNORS TO CHAMPION SHOE MACHINERY COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

## NEEDLE AND SHUTTLE GUARD FOR SEWING-MACHINES.

No. 833,954.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed August 4, 1905. Serial No. 272,732.

*To all whom it may concern:*

Be it known that we, GEORGE L. CORCORAN and GEORGE A. DOBYNE, citizens of the United States, residing at St. Louis, Missouri, have jointly invented a certain new and useful Improvement in Needle and Shuttle Guards for Sewing-Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevational view. Fig. 2 is a front elevational view of the machine, showing our invention applied. Fig. 3 is a vertical sectional view through the shuttle mechanism and the guard. Fig. 4 is a fragmentary elevational view of a portion of the shuttle mechanism, and Fig. 5 is a cross-sectional view on the line 5 5 of Fig. 2.

This invention relates to sewing-machines, and we have herein shown our invention as embodied in a machine of the type shown in our Patent No. 760,732, granted May 24, 1904.

One of the objects of the invention is to provide a sewing-machine with a guard for preventing the work being operated on from being engaged by an upwardly-moving work-penetrating member or by the shuttle.

Another object of the invention is to provide a novel guide for a work-penetrating member which will prevent the portion of the vamp adjacent to the welt of the shoe being operated on from being accidentally penetrated by said member; and still another object is to provide means for retaining heat in the shuttle-recess and also holding the bobbin-retainer in operative position.

Referring to the drawings, 1 designates a stand or frame carrying the shuttle and the part in which the needle-bar is mounted, the needle on said bar when in its operative position being adjacent to the shuttle, as shown in Fig. 3. The shuttle is inclosed in a recess 2 in the frame, and said shuttle and needle are inclosed by a door 3, that is hinged to the frame 1 and is secured in place by a catch 4. Adjustably secured to a portion of the frame of the machine is a work-table 7, provided with a needle-guide 8, having a passage-way in alinement with the needle, as shown

in Fig. 3. Projecting outwardly from the outer end of said guide is a lip that affords an extended bearing-surface for the welt of the shoe, and said guide is extended downwardly, as shown in Fig. 2, to form a face, which is engaged by the portion of the vamp adjacent to the outer sole of the shoe, said face cooperating with the door 3 to prevent any portion of the shoe being operated on from moving accidentally into the path of the vertical reciprocating needle, the upper edge of the door being provided with a cut-out portion in which the lower end of the guide 8 rests.

The door is provided with a spring 9, which is movable with the door and having a free end which bears against the bobbin-holder and while permitting it to rotate prevents accidental displacement of either the shuttle or the bobbin-holder. Projecting inwardly from the door and integral therewith is a lug or projection 10, which is adapted to engage the projection 11 on the bobbin-holder, so that said bobbin-holder will be prevented from rotating when the shuttle rotates, and thus obviate the liability of the shuttle-holder interfering with the needle during the operation of the machine.

12 designates a hot-water or steam flue in the frame and beneath the recess for the shuttle mechanism, said flue being adapted to receive a suitable fluid to heat the shuttle-recess, the heat being retained within the recess by the above-described door.

Although our invention is herein shown as embodied in a guard for preventing the work being operated on from being accidentally engaged by an upwardly-moving needle, it is obvious that it could be used equally well for preventing the work from being accidentally engaged by an awl in a machine in which the awl moved upwardly to penetrate the work, and wherever we have used the term "work-penetrating member" in the claims we mean either an awl or a needle.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a machine of the class described, the combination with a frame having a lateral projection containing a shuttle-recess and having a heat-flue below the same, a door for closing the open side of said recess to prevent the escape of heat therefrom, said door hav-



ing yielding means for maintaining the shuttle in operative position within the recess of said frame and being provided with a projection for engaging a portion of the bobbin-carrier to prevent rotation thereof; substantially as described.

2. In a machine of the class described, a work-table, a reciprocating work-penetrating member adapted to move upwardly to penetrate the work, and a guide having a passage-way in alinement with said work-penetrating member, said guide having a work-engaging surface at approximately a right angle to the plane of the work-table; substantially as described.

3. In a machine of the class described, a frame, a work-table mounted on said frame, a work-penetrating member located below said table and moving upwardly to penetrate the work lying thereon, a guide fastened to the table and provided with an opening through which said work-penetrating member moves, said guide also being provided with a downwardly-projecting guarding portion, and a door carried by the frame and co-operating with the guarding portion on said guide to form an inclosed passage-way which prevents any portion of the work being operated on from moving accidentally into the path of movement of said work-penetrating member; substantially as described.

4. In a sewing-machine of the character described, the combination, with the shuttle-head, a shuttle therein, of a guard-cap or shield arranged on said head to cover and protect the shuttle and its coacting parts, a bobbin-case provided with a horn, means arranged on said guard-cap to engage said horn, and a spring-arm to engage the bobbin-case.

5. In a sewing-machine of the character described, the combination, with the shuttle-head, a shuttle therein, a bobbin-case provided with a horn, a needle-bar and a needle, of a guard-cap or shield hingedly connected to said shuttle-head and adapted to be swung into engagement with said head to cover and protect said shuttle, needle-bar and needle, a latch to hold said guard-cap in closed position, a guide rib or flange formed on the inner side of said cap, and a spring-arm carried by the cap to engage and hold the bobbin-case in place.

In testimony whereof we nereunto affix our signatures, in the presence of two witnesses, this 3d day of July, 1905.

GEORGE L. CORCORAN.  
GEORGE A. DOBYNE.

Witnesses:

B. F. FUNK,  
GEORGE BAKEWELL.