

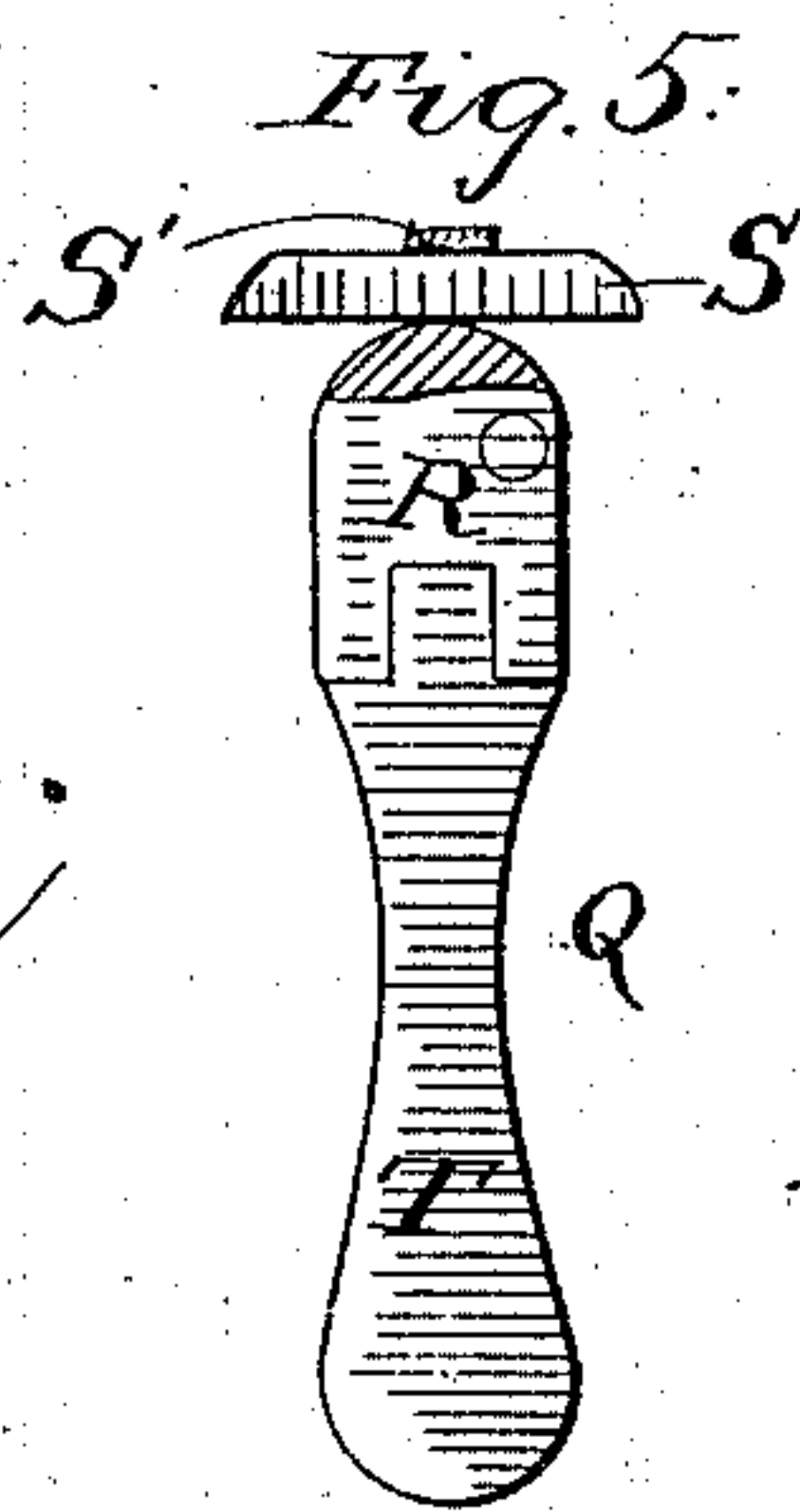
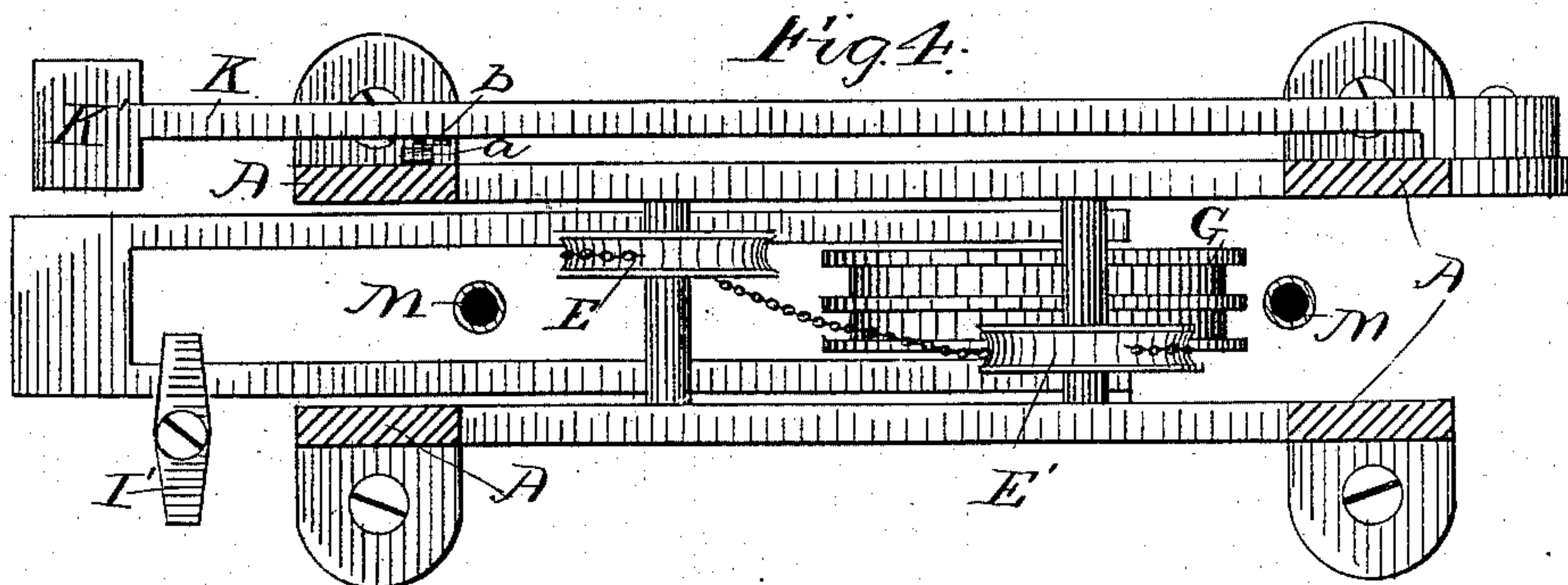
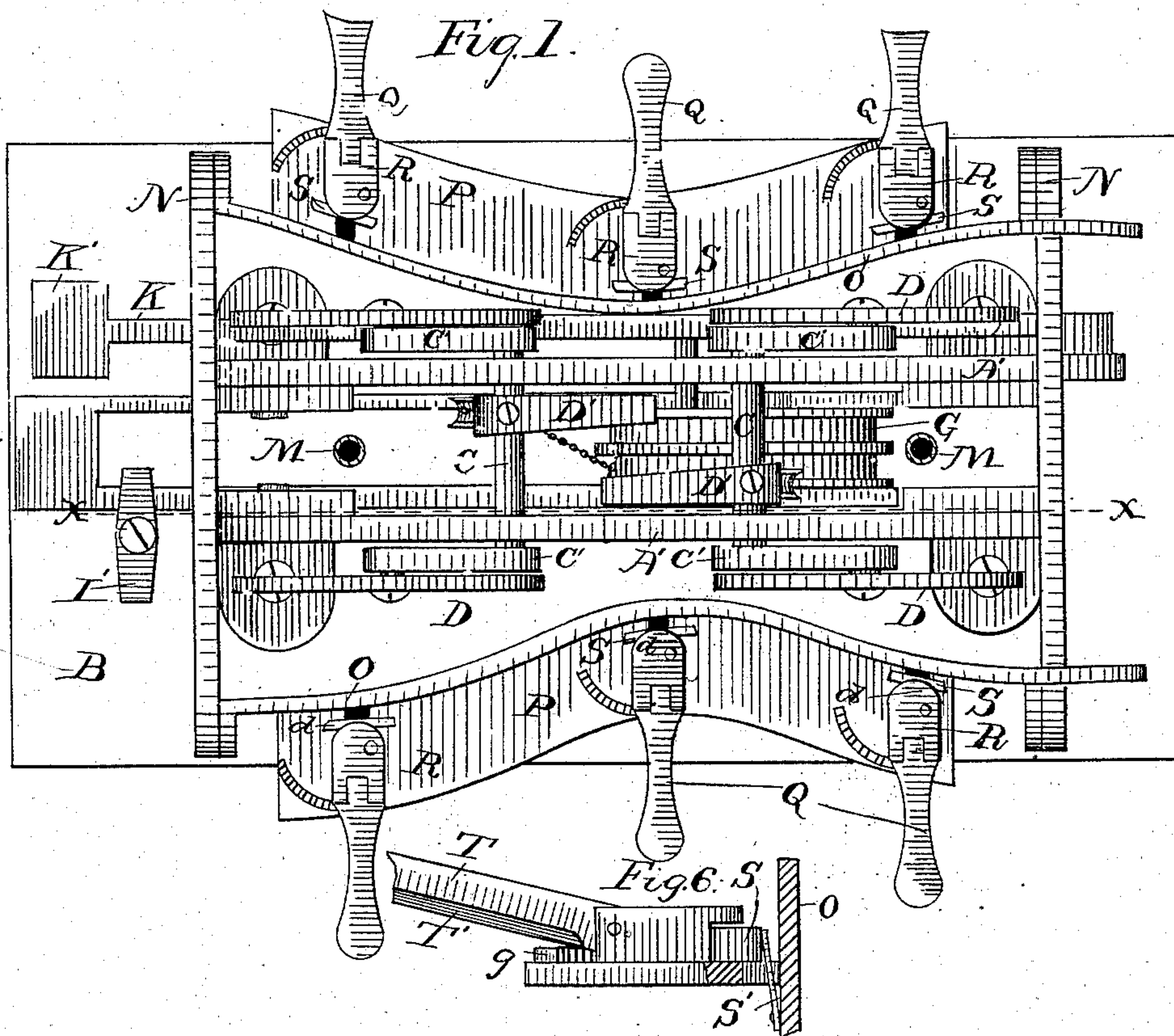
(No Model.)

2 Sheets—Sheet 1.

J. M. BISHOP.
CORSET PRESS.

No. 284,533.

Patented Sept. 4, 1883.



Witnesses

S. S. Williamson
A. M. Wooster

Inventor

James M. Bishop
By Wooster & Smith
Attys.

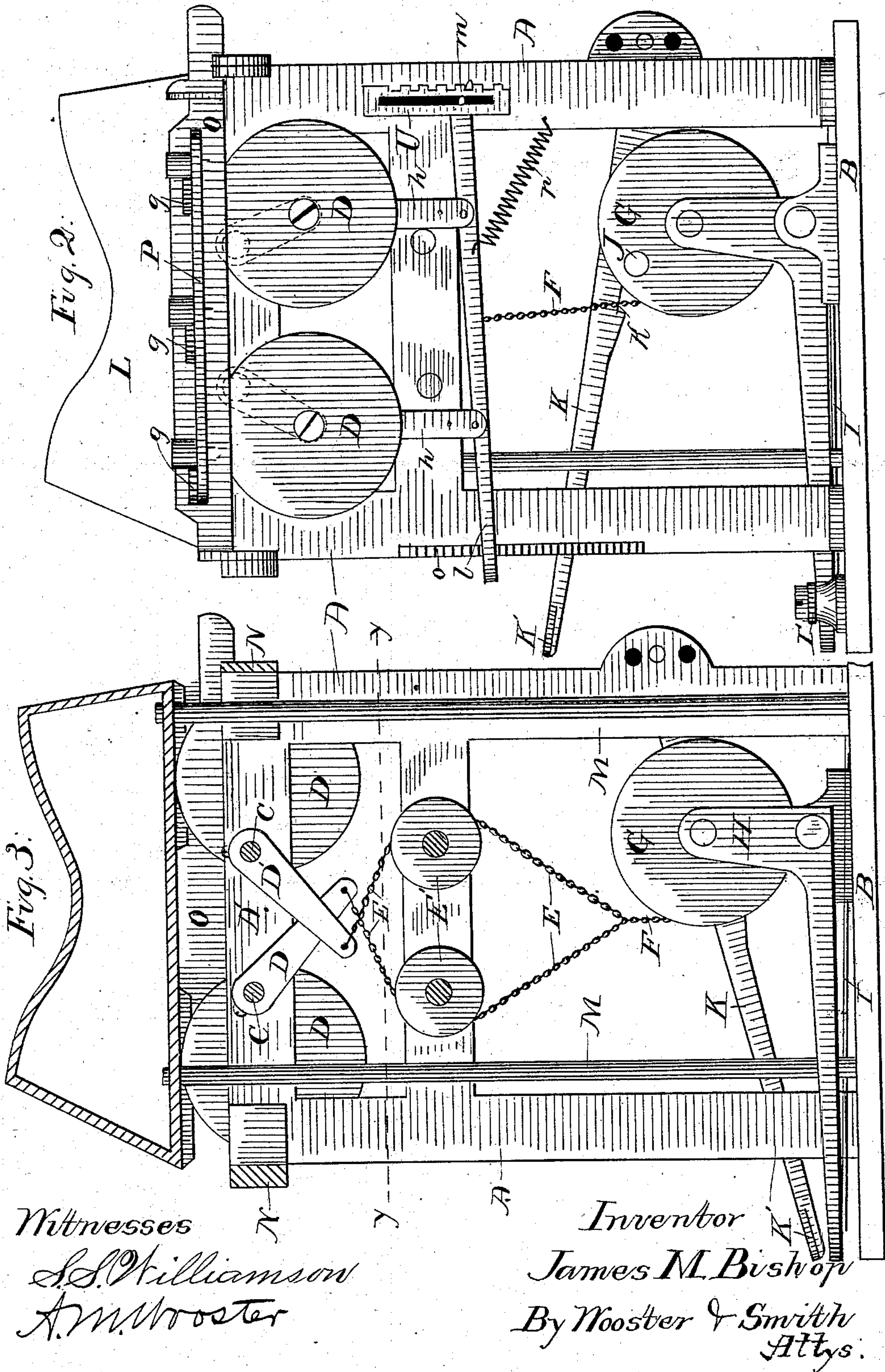
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

JAMES M. BISHOP, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-FIFTH
TO THOMSON, LANGDON & CO., OF SAME PLACE.

CORSET-PRESS.

SPECIFICATION forming part of Letters Patent No. 284,533, dated September 4, 1883.

Application filed July 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. BISHOP, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Corset-Presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to provide a new and improved press for shaping corsets.

The invention consists in a corset-press constructed with a mold which can be heated by suitable steam-pipes, which mold rests upon a series of cam disks or wheels which can be swung upward, whereby the mold will be raised and will be pressed against a sized corset fabric held over the same. The cam-disks at the same time permit a longitudinal movement of the mold in either direction, whereby the said corset fabric will be molded and formed into the shape of mold over which it is stretched, the longitudinal movement of the mold causing the same to "set" or "embed" itself into the fabric in the direction of its greatest elasticity or fullness.

The invention also consists in various parts and details and combinations of the same, as will be fully described and set forth hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved corset-press, showing the mold removed. Fig. 2 is a longitudinal elevation of the same with the mold in its lowered position. Fig. 3 is a longitudinal sectional elevation of the same on the line *xx*, Fig. 1, showing the mold raised. Fig. 4 is a sectional plan view of the same on line *yy*, Fig. 3. Fig. 5 is an enlarged sectional plan view of one of the clamps for holding the corset-fabric in place on the mold; and Fig. 6 is a detached sectional elevation of one of the clamps.

Two vertical frames, *A A*, are secured parallel with each other on a base, *B*, and in the top cross-pieces, *A'*, of the frames *A* two transvers shafts, *C*, are journaled, each of which is provided at each end with a crank-arm, *C'*, on the end

of each of which arms a cam disk or wheel, *D*, is journaled, the arms *C'* of the shafts *C* projecting in opposite directions and from each other. Each shaft is provided with an arm, *D'*, which is inclined to the arms *C*, the said arms *D'* of the two shafts *C* being inclined downward and toward each other. To the lower ends of the arms *D'* chains *E* are attached, which cross each other and pass around two guide-pulleys, *E'*, journaled in the frames *A*, the lower ends of which chains *E* are united to a chain, *F*, secured to the periphery of a grooved pulley, *G*, which is journaled between the ends of the upwardly-projecting shanks of an L-shaped frame, *H*, pivoted on the base *B*. A spring, *I*, secured on the base *B*, has its free end resting against the ends of the long arm of the frame *H*, and has the tendency to press the same upward. By means of a latch, *I'*, pivoted on the base *B*, the end of the long arm of the frame *H* can be held down on the base. A driving-belt operated from some suitable motor is to pass around the pulley *G*. A pin-
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tiple or stud, *J*, projects from one side of the pulley *G*, near the periphery of the same, and on the said stud a foot-lever, *K*, rests, which is pivoted to one of the standards of one of the frames *A*, and is provided at its free end with a foot-plate, *K'*. The lever *K* is provided in its lower edge with a notch or recess, *k*, into which the pintle *J* passes. On that standard of the frame *A* against which the free end of the lever *K* rests a series of downwardly-projecting teeth, *a*, are provided, and the lever *K* is provided with a tooth, *b*, projecting toward the teeth *a*, which tooth *b* is adapted to engage with the teeth *a* for the purpose of locking the lever *K* in position.

On the edges of the cam-disks *D* a hollow metal mold, *L*, of the desired shape of the corset, rests, into which mold *L* steam is conducted through two vertical pipes, *M*, passing loosely through the bottom of the mold *L*, in which they may be suitably packed, if desired, to prevent escape of the steam.

Cross-pieces *N* are fastened to the top of the ends of the frames *A*, and to the said cross-pieces curved bars *O* are secured, which are placed edgewise and curved in such a manner as to fit against the lower edges of the corset-mold. From the said plates or bars *O* horizontal plates *P* project, on which a series of clamps, *Q*,

are pivoted, for holding the edges of the corset fabric on the plates O. Each of the said clamps consists of a cam-block, R, pivoted eccentrically on the plate P to swing in the horizontal plane, which cam-block R is provided at its upper edge with an inwardly-projecting flange, *d*, which overlaps the upper edge of a plate, S, passing through a slot in the plate P, which plate S is pressed from the plate O by a spring, S'.

An upwardly-swinging lever, T, is pivoted to the cam-block R, and is provided in its lower edge with a ridge, T', which can be passed into the notches between any two of a series of teeth, *g*, arranged semicircularly on each plate P at each clamp Q, whereby the cam-block can be locked in the desired position.

To the free ends of the arms C, on the outer side of one frame A, connecting-bars *h* are pivoted, which have their lower ends pivoted to a lever, *l*, which has one end pointed and adapted to pass in between a series of studs, *m*, projecting from the side of one of the frames A, and having their outer ends united by a plate, U. Between the plate U and the side of the frame A the pointed or beveled end of the lever *l* is held. The handle end of the lever *l* can be passed under one of a series of upwardly-projecting teeth, *o*, projecting from the outer surface of one of the frames A. A spring, *p*, attached to the lever *l* and to the frame A, draws the said lever *l* downward.

The operation is as follows: The cams D hang down, and their upper edges are lower than the upper edges of the plates O, and consequently the lower edges of the mold L will also be lower than the upper edges of the plates O. A corset which has been sized is then placed over the mold, and the edges of the corset are pressed against the outer surfaces of the upright plates O, and are held against the same by the plates S, which are pressed against the plates O by swinging the handles T of the cam-blocks R in the direction of the arrow *a'*, and then the cam-block R and the plates S are locked in this position by pressing down the handles T, so that their ridges T' will be passed in between the teeth *g*. The edges of the corset fabric will be clamped firmly against the sides of the plates O. Then the mold L must be raised so that the mold will be pressed firmly against the corset fabric, which causes it to embed itself into the corset fabric in the direction of its greater elasticity or fullness, thereby prevent uneven stretching of the corset in use. If the free end of the lever K is pressed downward, it will act on the stud J of the pulley G, and will turn the said pulley in the direction of the arrow *b'*, thereby drawing the chain F downward, and drawing the ends of the arms D' downward, thereby raising the free ends of the arms C' and the cam-disks D. As the mold L rests on the cam-disks, it will also be raised with the same, and will be pressed firmly against the corset fabric held over the same, and embedded therein as hereinbefore described. During the above-

described operation the long arm or shank of the L-shaped frame H must be locked on the base; but if the machine is not to be operated by foot-power, but by steam-power or some other motor, the foot-lever K is not required, and the end of the long shank of the frame H is released from the base, and is immediately pressed upward by the spring I, and the belt for rotating the pulley G will be slackened; but as soon as the operator presses down the end of the long shank of the frame H the pulley G will be moved slightly toward the operator, and this movement is sufficient to draw the driving-belt of the pulley G taut, so that the belt will rotate the pulley G in the direction of the arrow *b'*, thereby drawing the chain F downward, and thus raising the corset-mold in the manner described. As soon as the mold has been raised the belt is loosened and the weight of the mold presses the cam-wheels D downward, thereby pulling the chain F downward and rotating the disks D in the direction of the arrow *a''*; but as it is necessary that the heated mold shall be raised for some time—that is, the heated mold must be pressed against the corset fabric for some time, in order to give the corset the proper shape and mold—suitable devices must be provided for holding the mold raised. If the foot-lever is used, the mold can be held raised by passing the tooth *b* on the lever K under one of the teeth *a* on one of the standards of the frame A, and the mold can then be held raised as long as may be desired. If it is to be lowered, the lever K is released; but if power is applied, another device must be provided. When the arms C swing upward, the connecting-bars *h* and the lever *l* are raised with them. Then the beveled end of the lever *l* is passed on one of the studs *m*, uniting the plate V and the frame A, and the handle end of the lever *l* is passed on one of the teeth *o*. The lever *l* and the connecting-bars *h* will then hold the mold raised, even if the power has been removed from the wheel G. If the mold is to be lowered, the beveled end of the lever *l* is withdrawn from between the studs *m*, and the handle is moved from the teeth *o*, and the weight of the mold will immediately press the disks D downward. After the mold has been lowered the handles T of the clamps Q are swung in the inverse direction of the arrow *a'*, thus permitting the springs S' to force the plates S from the plates O, thereby releasing the edges of the corset fabric, which can then be removed.

By means of the above-described clamps Q the corset fabric can be adjusted in place over the mold and held there very easily and rapidly, and the molded fabric can be removed very quickly and easily.

The above-described clamping devices can be used with molds L of any desired shape or size. The mold L can be raised a greater or less height until the fabric is pressed very closely and firmly on the same, and thus all the corsets can be properly molded.

I do not desire to claim, broadly, in this

application a corset-press with a mold, devices for clamping the corset fabric held over the mold, and devices for pressing the mold upward against the fabric, such broad claim being reserved to my application for Letters Patent filed April 5, 1883, and officially numbered 90,725, of which the present application is a division and a continuation.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a corset-press, the combination, with the mold, of devices for holding the corset fabric over the mold, and swinging cam disks or wheels supporting the mold, substantially as herein shown and described, and for the purpose set forth.

2. In a corset-press, the combination, with the mold, of devices for holding the fabric over the mold, swinging cam disks or wheels upon which the mold rests, and devices for swinging the said cam-disks upward for the purpose of raising the mold and pressing it against the fabric stretched over it, substantially as herein shown and described.

3. In a corset-press, the combination, with suitable frames, of two shafts journaled in the said frames, and provided at each end with an arm, cam disks or wheels mounted on the ends of the arms, which disks are adapted to support the corset-mold, and of devices for rocking or turning the said shafts in such a manner that they will move the mold upward, substantially as herein shown and described.

4. In a corset-press, the combination, with the frames A, of the shafts C, journaled on the same, having arms C', the cam-disks D, mounted on the ends of the shaft C, the arms D' on shafts C, and chains E, attached to the ends of the arms D', substantially as herein shown and described, and for the purpose set forth.

5. In a corset-press, the combination, with the frames A, of the shafts C, journaled on the same, and having arms C', the cam-disks D, mounted on the ends of the shafts C, the arms D' on the shafts C, the chains E, attached to the ends of the arms D', the pulleys E', the pulley G, with which the chains E are connected, and devices for turning the pulley G, substantially as herein shown and described, and for the purpose set forth.

6. In a corset-press, the combination, with the frames A, of the shafts C, journaled on the same, and having arms C', the cam-disks D, mounted on the ends of the shaft C, the arms D' on the shafts C, the chains E, attached to the ends of the arms D', the pulleys E', the pulley G, with which the chains E are connected, the stud or pintle J on the pulley G, and the pivoted lever K, resting on the stud J, substantially as herein shown and described, and for the purpose set forth.

7. In a corset-press, the combination, with the frames A, of the shafts C, journaled on the same, and having arms C', the cam-disks D, mounted on the ends of the shafts C, the arms D' on the shafts C, the chains E, attached to the ends of the arms D', the pulleys E', the pulley G, with

which the chains E are connected, the stud or pintle J on the pulley G, the pivoted lever K, resting on the stud J, and of devices for locking the lever K in position when lowered, substantially as herein shown and described, and for the purpose set forth.

8. In a corset-press, the combination, with the frames A, of the shafts C, journaled in the same, and having arms C', the cam-disks D, mounted on the ends of the shafts C, the arms D' on the shafts C, the chains E, the pulleys E', the pulley G, the lever K, and the L-shaped frame H in which the pulley G is journaled, substantially as herein shown and described, and for the purpose set forth.

9. In a corset-press, the combination, with the frames A, of the shafts C, journaled in the same, and having arms C', the cam-disks D, mounted on the ends of the shafts C, the arms D' on the shafts C, the chains E, the pulleys E', the pulley G, the lever K, the L-shaped frame H, in which the pulley G is journaled, the spring I, and the latch I', substantially as herein shown and described, and for the purpose set forth.

10. In a corset-press, the combination, with the frames A, of the shafts C, journaled in the same, and having arms C', the cam-disks D, mounted on the ends of the shafts C, devices for swinging the shafts C for the purpose of raising the disks D, and of devices for locking the disks D in the raised position, substantially as herein shown and described, and for the purpose set forth.

11. In a corset-press, the combination, with the frames A, of the shafts C, provided with arms C', the cam-disks D, the arms D', the chains E, the pulleys E' and G, the connecting-bars h, pivoted to the ends of the arms C', the lever l, to which the bars h are pivoted, the row of studs m, and the teeth o, substantially as herein shown and described, and for the purpose set forth.

12. In a corset-press, a clamp for holding the fabric, consisting of the pivoted eccentric block R, the handle-lever T, pivoted to the same, the plate S, and spring S', all combined as herein set forth.

13. In a corset-press, a clamp for holding the fabric, consisting of the pivoted eccentric block R, the handle-lever T, pivoted to the same, and provided with a ridge, T', the plate S, the spring S', and teeth g, arranged on a circular line, substantially as herein shown and described, and for the purpose set forth.

14. In a corset-press, the combination, with a mold, L, of steam-pipes M, passing loosely into the same, and devices for pressing the mold L upward and against the fabric held on the same, substantially as herein shown and described, and for the purpose set forth.

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

JAMES M. BISHOP.

Witnesses:

A. M. WOOSTER,

S. S. WILLIAMSON.