

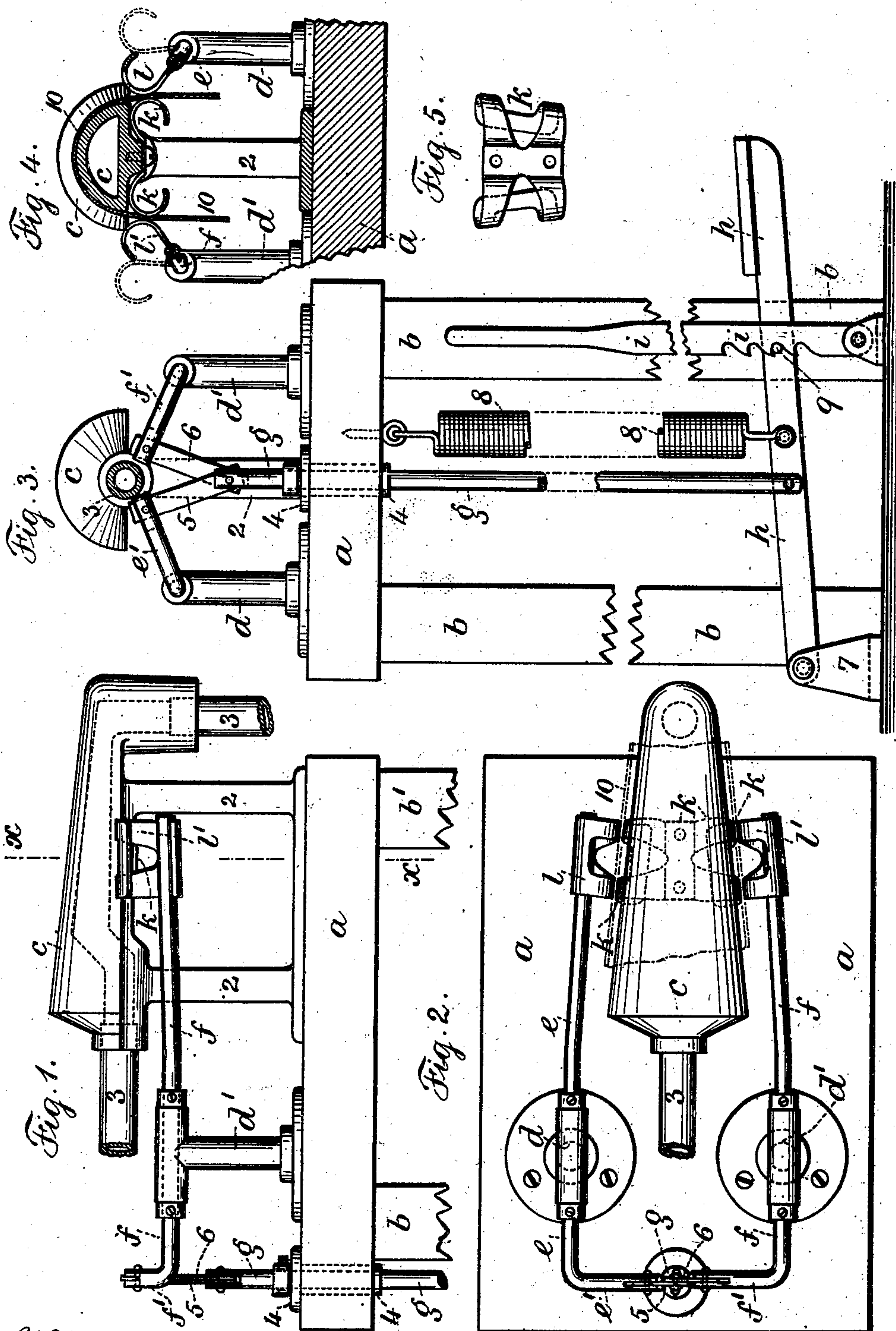
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Patented Jan. 7, 1902.

S. KOPS.  
CORSET SHAPING MACHINE.

(Application filed Oct. 23, 1901.)

(No Model.)



Witnesses:  
J. Stait  
Chas. H. Smith

Inventor  
S. Kops  
by L. H. L. L. L. L. L.



# UNITED STATES PATENT OFFICE.

SAMUEL KOPS, OF NEW YORK, N. Y., ASSIGNOR TO KOPS BROTHERS, OF  
NEW YORK, N. Y.

## CORSET-SHAPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 690,740, dated January 7, 1902.

Application filed October 23, 1901. Serial No. 79,639. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL KOPS, a citizen of the United States, residing in the borough of Manhattan, in the city, county, and State of New York, have invented an Improvement in Corset-Shaping Machines, of which the following is a specification.

In the manufacture of corsets the bust portion is shaped over a heated form, and heretofore a block of a shape corresponding with the form has been brought forcibly down upon the form and upon the corset-bust thereon and as pressure was applied the corset was stretched and held to the form for an appreciable time. With this device the action of this block is very liable to tear the lace edging of the corset and to disarrange the edges of the folds, often producing an unsightly appearance as well as damaging the corset; and the object of my invention is to overcome these disadvantages.

In carrying out my invention and in combination with the form adapted to be heated and over which the corset-bust is stretched I employ rocker-arms carrying spring-blades and a coacting spring-plate with curved sides, which latter is secured to the under side of the form adapted to be heated. The spring-blades and the rocker-arms to which they are connected are to be given a turning movement by suitable devices, so as to bring said blades against the outer surface of the corset-bust upon opposite sides of the heated form to press the same against the spring-plate and with the yielding movement of the parts to draw the corset-bust down tightly upon the heated form and hold the same in place for an appreciable period while the heat of the form is acting upon the fabric to shape the same. These arms and spring-blades are provided with ends at right angles and with links connected thereto and to a vertical rod, the vertical rod in turn being connected to a foot-lever, which foot-lever may be held in a downward position by a latch-arm and when released may be raised by a spring.

In the drawings, Figure 1 is an elevation representing the principal features of my improvement. Fig. 2 is a plan of the same. Fig. 3 is an end view not only representing the same parts, but the foot-lever and actuating

parts. Fig. 4 is a cross-section at  $xx$  of Fig. 1, and Fig. 5 is a plan of the spring-plate alone.

The table  $a$  or top is provided with supports or legs  $b b'$ , and upon said table is a hollow tapering metal form  $c$ , of semicylindrical shape, provided with standards 2 for supporting the same from and upon the table, and pipes 3, entering the respective ends of the hollow metal form  $c$ , provide for the entrance of steam into said hollow form and its exit in heating the same.

$d d'$  represent columns secured to the table  $a$  and having journals for rocker-arms  $e f$  passing therethrough. These rocker-arms are provided with ends  $e' f'$  at right angles and slotted, and the other ends of said columns are bent out of line.

I provide a vertical rod  $g$ , passing through a tubular guide 4 in the table  $a$ , and links 5 6 are connected at one end to the upper end of the vertical rod  $g$  and at their other ends to the slotted ends  $e' f'$  of said rocker-arms. The lower end of the vertical rod  $g$  is pivotally connected to a foot-lever  $h$ , secured at one end to a bracket 7, and I provide a spring 8 at one end secured to the said foot-lever  $h$  and at the upper end to the under side of the table  $a$  by a screw-eye or any other suitable device. A latch-arm  $i$  is pivotally secured to the floor or other support and to the same support carrying the bracket 7, and said arm is provided with edge notches adapted to engage a pin 9 upon the foot-lever. The outer end of the foot-lever  $h$  is to be pressed upon by the foot and borne downward against the spring. This movement swings the rocker-arms into the position Fig. 3 or into a position where the said ends  $e' f'$  are nearer in a straight line. I do not limit myself to the hereinbefore-described devices for moving the rocker-arms and which engage their ends  $e' f'$ , as an equivalent device may be employed to advantage.

I provide a spring-plate  $k$  with curved sides secured to the under surface of the hollow tapering metal form  $c$ . This plate is advantageously perforated or made with an open center to facilitate its flexibility or yielding function. Curved spring-blades  $l l'$  are secured to the free ends of the rocker-arms  $e f$ ,



and the same are adapted to bear upon the curved sides of the spring-plate *k*, and 10 represents the corset-bust as stretched over the form (see Figs. 2 and 4) and as held with  
 5 force between the curved sides of the spring-plate *k* and the curved spring-blades *l* *l'*, said contact of the parts and the pressure thereon being applied by the swinging movement of  
 10 the said rocker-arms by means of the rod, links, and foot-lever, heretofore described, or their equivalent. As these curved spring-blades press upon the corset-bust and press the same against the curved sides of the  
 15 spring-plate *k* there is a yielding action of both the plate and the blades tending to draw the corset-bust more tightly upon the surface of the metal form *c* and at the same time to draw the same within the extreme diameter  
 20 of said form, which tends to increase the contact of the bust upon the form, or, in other words, to insure the fabric of the corset-bust overlying the entire upper curved surface of the form, thus facilitating the shaping operation.

25 It is evident that as the foot is pressed upon the foot-lever *h* and the rod *g* and links 5 6 are moved downward and the rocking arms *e f* turned that this movement of the curved spring-blades against the corset and the  
 30 spring-plate will be effected, and when the desired or extreme movement is reached the latch-arm *i*, engaging the pin 9, will hold the parts in such position. To release said parts by the contraction of the spring 8, it is only  
 35 necessary to move the arm *i* toward the operator and away from the pin 9, the spring 8 thereafter performing the work of returning the parts to their original position and freeing the corset-bust, so that it can be removed  
 40 from the heated form and another placed thereon and the operations repeated.

I claim as my invention—

1. In a corset-shaping machine, the combination with a hollow metal form adapted to be  
 45 heated, of a spring device connected thereto and spring devices upon opposite sides of said heated form adapted to engage the spring device connected thereto, the corset being held  
 50 applying and holding the pressure, substantially as set forth.

2. In a corset-shaping machine, the combination with a hollow metal form adapted to be  
 55 heated, of a spring device connected thereto and spring devices upon opposite sides of said heated form adapted to engage the spring device connected thereto, the corset being held  
 between said spring devices, and rocker-arms

and journaled supports therefor, said rocker-arms being connected to the opposite spring  
 60 devices, and means for swinging the said rocker-arms in their journals and applying pressure as between the aforesaid spring devices, substantially as set forth.

3. In a corset-shaping machine, the combination with a hollow-metal form adapted to be  
 65 heated, of a spring device connected thereto and spring devices upon opposite sides of said heated form, adapted to engage the spring device connected thereto, the corset being held  
 70 between said spring devices, and rocker-arms and journaled supports therefor, said rocker-arms being connected to the opposite spring devices, and links pivotally connected to the  
 75 said rocker-arms, a vertical rod and foot-lever connected to the said links, a latch-arm and pin for holding the said parts in their lowermost or desired position, and a spring for returning the parts to their normal position  
 80 when released, substantially as set forth.

4. In a corset-shaping machine, the combination with a hollow tapering metal form of  
 85 semicylindrical shape adapted to be heated and a suitable support therefor, of a spring-plate with curved ends secured to the under side of said form, rocker-arms, supports therefor and means for operating said arms, curved  
 90 spring-blades secured to the ends of the rocker-arms coming at opposite sides of said hollow heated form and occupying a position adapted to contact with the sides of the  
 95 spring-plate secured to the under surface of said form and in operation to press the corset fabric between the said spring devices, substantially as set forth.

5. In a corset-shaping machine, the combination with a hollow tapering metal form of  
 100 semicylindrical shape adapted to be heated, and a suitable support therefor, of a spring-plate with downward inwardly-curved ends secured to the underside of said form, rocker-arms, supports therefor, and means for operating said arms, upwardly and outwardly  
 105 curved spring-blades secured to the ends of the rocker-arms coming at opposite sides of said hollow heated form and occupying a position adapted to contact with the sides of the  
 110 spring-plate secured to the under surface of said form, and in operation to press the corset fabric between the said spring devices, substantially as set forth.

Signed by me this 18th day of October, 1901.  
 SAMUEL KOPS.

Witnesses:

GEO. T. PINCKNEY,  
 S. T. HAVILAND.