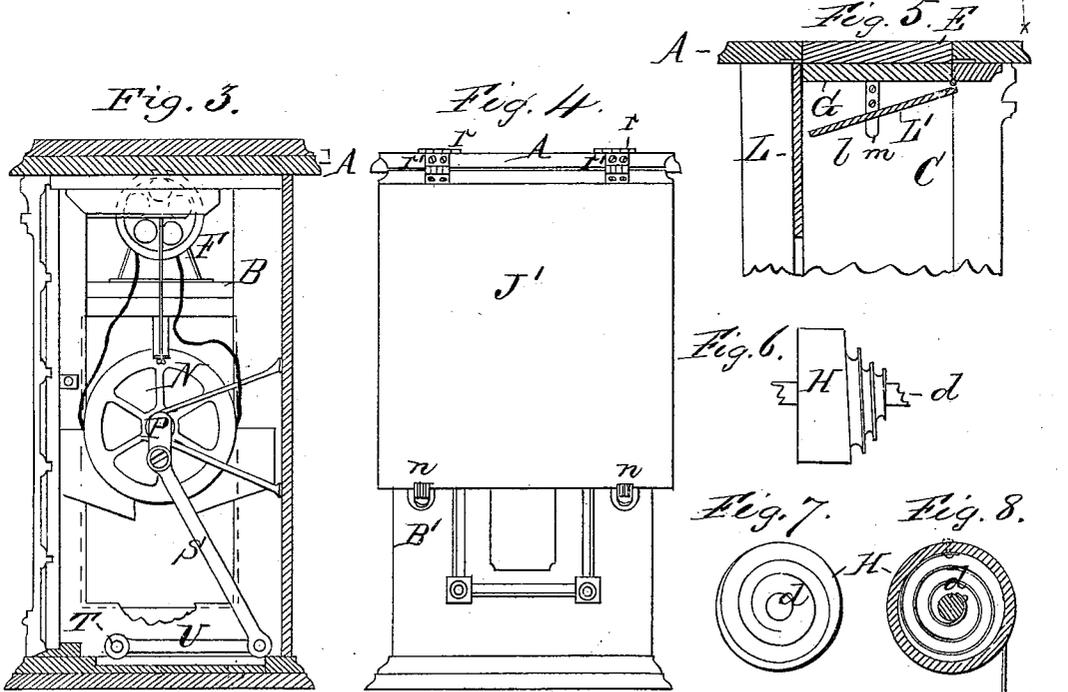
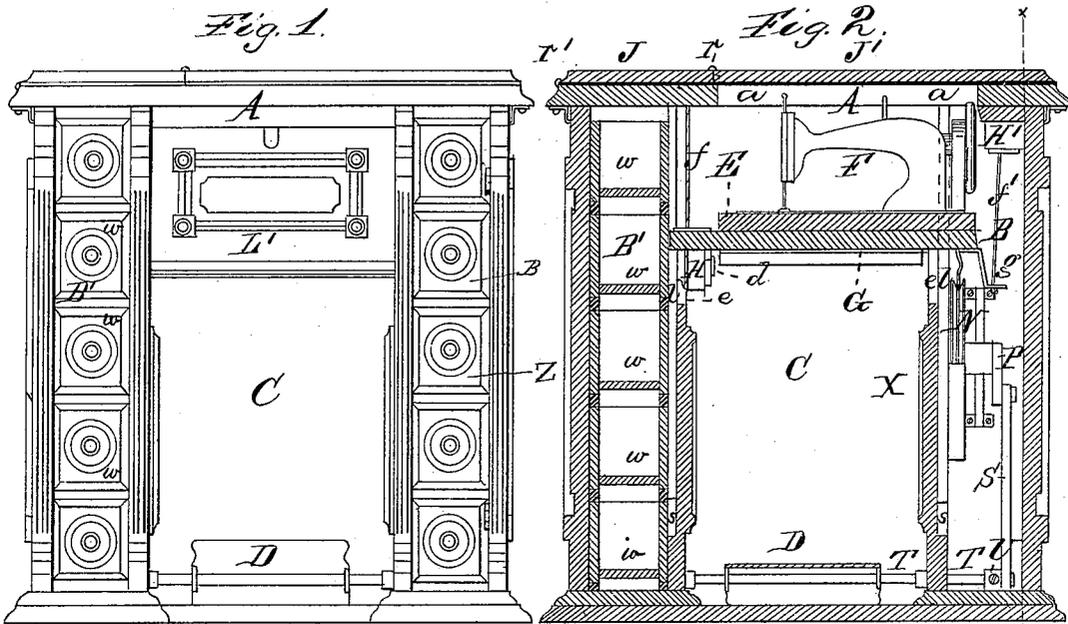


J. BOLTON.
CABINET FOR SEWING MACHINES.

No. 298,277.

Patented May 6, 1884.



Witnesses,
 W. L. Pennem.
 Chas. Graves.

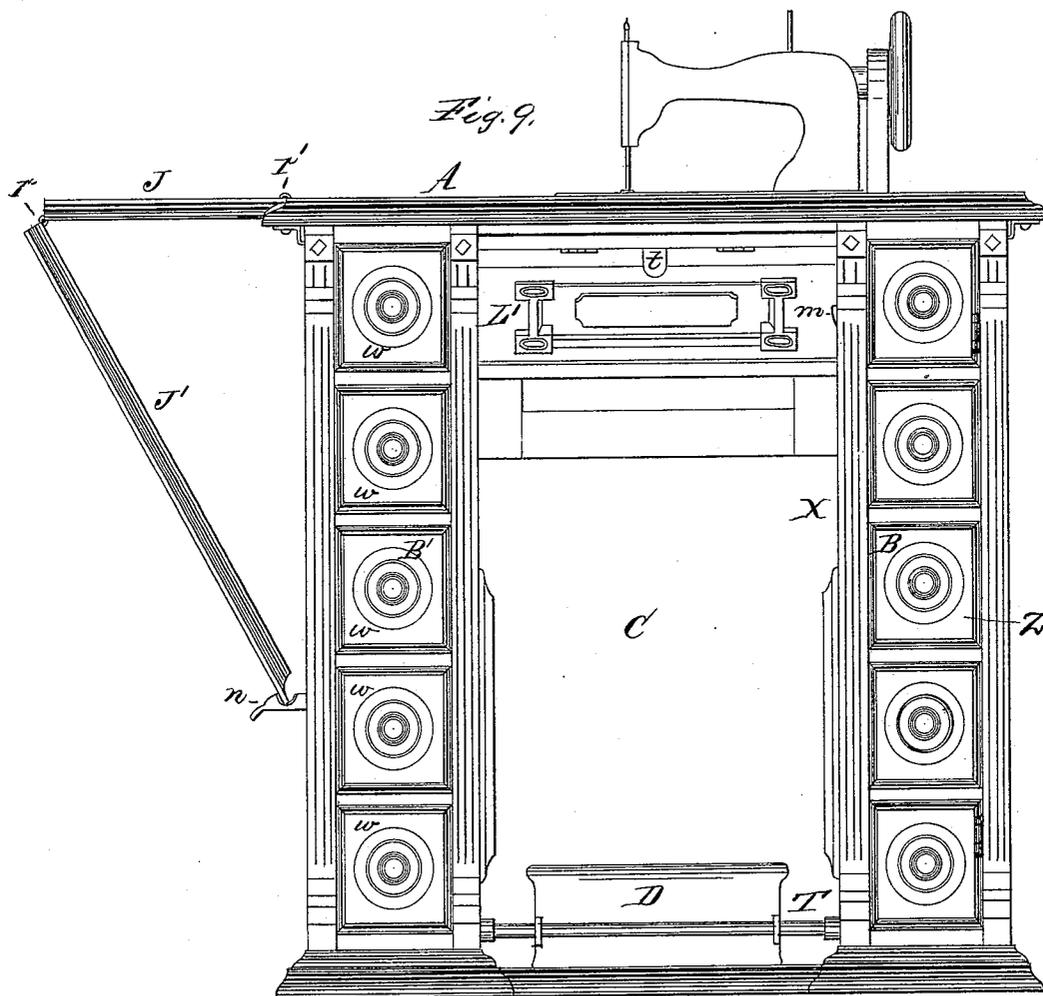
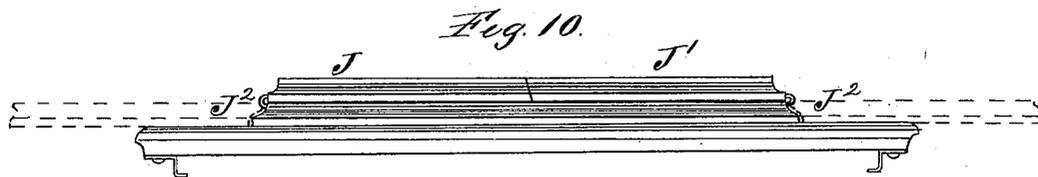
Inventor
 Jas. Bolton
 by his atty.
 C. S. Rennicks

J. BOLTON.

CABINET FOR SEWING MACHINES.

No. 298,277.

Patented May 6, 1884.



Witnesses.
 W. L. Bennett
 Chas. Graves

Inventor.
 Jas. Bolton
 by his atty.
 C. J. Remick

UNITED STATES PATENT OFFICE.

JAMES BOLTON, OF CHICAGO, ILLINOIS.

CABINET FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 298,277, dated May 6, 1884.

Application filed December 16, 1879.

To all whom it may concern:

Be it known that I, JAMES BOLTON, of Chicago, in the county of Cook and State of Illinois, have made an invention of certain new and useful Improvements in Cabinets for Sewing-Machines; and I do hereby declare that the following, taken in connection with the accompanying drawings, is a full, clear, and exact description and specification of the same.

10 The invention has reference more particularly to dormant cabinets, in which the machine may either be concealed beneath the cabinet-cover or may be raised up for use.

15 The objects of the invention are to improve the action and utility of such cabinets; and to this end my invention consists of certain combinations and constructions of devices, which are fully set forth in the claims at the close of this specification.

20 In order that the invention may be fully understood, I have represented in the accompanying drawings, and will proceed to describe, the best mode thus far devised by me of embodying my invention for practical use.

25 Figure 1 of said drawings represents a front view of the cabinet, with the sewing-machine dormant beneath the top of the cabinet. Fig. 2 represents a longitudinal section of the same. Fig. 3 represents a transverse section of the same at the line *x x* of Fig. 2. Fig. 4 represents an end view of the cabinet with the cover opened for use. Fig. 9 represents a front view of the same with the cover opened and the machine raised for use. Fig. 5 represents a partial transverse section of the same. Figs. 6 to 8 represent views in detail of the spring mechanism. Fig. 10 represents an edge view of the top of the machine, with a cover of different form from that shown in the other figures.

40 The cabinet represented in the drawings has a top, A, supported upon two upright box standards or trunks, B B'—one arranged at each side of a central space, C, in which the treadle D is constructed to vibrate. The top is perforated with an opening or hatchway, *a*, to which a movable bed, E, for holding the machine F, is fitted. This bed is secured to a movable platform, G, which crosses the treadle-space C, and has its ends extended into 50 openings *e e*, formed in the inner sides of the

trunks B B', and these openings are of sufficient depth to permit the bed to be lowered far enough to place the machine F beneath the cover A.

In order that the platform may be guided 55 truly when it is lowered and raised again, it is connected with two slides, *l l*, which project from its under side, and are fitted to slide in guide-grooves *s s*, formed in the supporting-trunks B B', which thus form groove-guides 60 for the platform. These slides are constructed at least as broad as the openings in the sides of the trunks; hence when the machine and platform are raised these guides, rising with the platform, close the openings in the inner sides 65 of the trunks beneath the platform and form panels for said inner sides.

In order that the machine may be readily raised and lowered, springs are provided to sustain its weight in whole or in part. These 70 springs are coiled springs, similar in form to clock-springs. Each spring is coiled within a conical barrel, H and H', (Figs. 2, 6, 7, 8,) whose surface is grooved with a volute groove, to receive a wire cord, which is secured at one 75 end to the barrel. Each spring is attached at its outer end to its barrel, and is attached at its inner end to a fixed arbor, *d*, on which the barrel may be turned and the spring wound up. The arbor of one of the spring-barrels 80 H is, by preference, connected with the platform G, and the arbor of the other spring-barrel, H', is, by preference, connected with the top A. The outer end of the wire-rope *f* of the platform-barrel H is extended upward 85 and is secured to the top A of the cabinet. The wire-rope *f'* of the other barrel, H', is extended downward, and its end is connected with a bracket, *g*, secured to the platform. When the platform G is depressed, the wire- 90 cords extend from the largest diameter, or thereabout, of the grooves of their respective barrels to the places where their ends are made fast, and the springs are wound up upon their respective arbors, so as to tend to turn 95 the barrels and wind up the cords; hence, if the machine be raised, the springs, winding up the cords, exert force to raise the weight of the platform and machine, and when the machine is lowered the extension of the cords winds up 100

the springs, so that the force of the springs counterbalances the weight of the platform and machine in whole or in part, according to the strength of the springs. The conical form of the barrels is important, because it equalizes the strain upon the cords and compensates the variation in the force of the springs due to their being more or less wound up in lowering and raising the platform.

In order that the opening of the top of the cabinet may be covered when the machine is lowered, as in Figs. 1 and 2, a movable cover is provided. This cover is, by preference, constructed, as represented in Figs. 1, 2, 4, and 9, in two leaves, $J J'$, which are hinged to each other, as at r , and one of which, J , is hinged to the cabinet-top, as at r' . When the machine is dormant, as at Figs. 1, 2, 3, and 5, the cover lies flat over the cabinet-top; but before the machine is raised the cover is raised and folded on its hinges, as at Figs. 4 and 9, and its lower edge is supported upon two lugs, $n n$, secured to the side of one of the upright trunks, B' . When the cover is in this position, it constitutes an extension-top for the cabinet, and increases correspondingly the operative table-surface for supporting the work. If this form of extension-cover is not desired, the cover may be made, as represented in Fig. 10, of two leaves, $J J'$, both of which are hinged to a perforated central fixed leaf, J^2 , so that the hinged leaves may either be folded over the openings in the top A and fixed leaf J^2 , or may be opened, as represented in dotted lines.

In order that the rear side of the machine may be inclosed when it is dormant, as in Figs. 1, 2, and 3, a fixed panel, L , is secured between the upper parts of the trunks $B B'$, and extends down as far as the lower side of the platform, when it is depressed or lowered. A corresponding panel, L' , is employed at the front side of the cabinet; but as such a panel, if a fixture, would interfere with the operator of the machine, this front panel is hinged at its upper end, to form a swinging or flap front, which, when the machine is lowered or dormant, stands in an upright position, as at Fig. 1, and incloses the front side of the machine, and which, when the machine is raised, is swung backward, as in Figs. 5 and 9, so as to be out of the way of the operator. When this flap-front is swung backward, it is held in its position by means of a spring-catch, m . When the machine and platform are raised, they must be held firmly. For this purpose a spring-catch, t , is employed, and it is so set that its point engages beneath a striking-plate on the under side of the platform when the latter is raised. This catch is drawn back when the platform is to be lowered. I contemplate applying a single catch either to the lower edge of the flap L' or to the inner face of the fixed panel, to hold the flap L' with sufficient force to enable it to sustain the platform when the latter is raised, and the flap is swung beneath

it. In this case one spring-catch will do the work of the two, $t m$, represented in the drawings.

The left-hand trunk B' may be constructed with internal slides for drawers w , for holding articles used with the machine. The fly-wheel N , crank-shaft P , and connecting-rod S of the treadle are arranged within the right-hand trunk B .

In order that the power from the treadle D between the two trunks may be imparted to the connecting-rod within the trunk, the treadle D is solidly secured to the treadle-shaft T , so that the latter is compelled to oscillate with the treadle, and the shaft is extended into the trunk and is fitted therein with an arm, U , to the outer end of which the connecting-rod S is pivoted.

The arrangement of the connecting-rod, crank, and shaft within the trunk, where they are separated from the treadle and the space over it by the intervening side X of the trunk, which forms a partition between the treadle and the other parts of the trunk, prevents the clothes of the operator from being soiled by the oil which is necessarily used upon the moving parts. Motion is imparted from the fly-wheel N to the driving-shaft of the machine by means of a belt, in the usual manner. When the machine is lowered, this belt is slacked by the movement of the driving-shaft; but the raising of the machine for use, separates the two shafts and retightens the driving-belt, so that when the machine is raised the belt is ready for operation.

From the foregoing description it will be perceived that the inner side, X , of the trunk B' forms a permanent partition between the fly-wheel and its connections on the one side and the space over the treadle on the other, and incloses the former, as in a box; hence one side of this trunk, and by preference its front side, is formed into a door, Z , which opens externally of the space over the treadle, so as to give free access to the fly-wheel and its connections for oiling and other purposes. As the said door Z is external of the space over the treadle, it permits access to the interior of the trunk B' without requiring the operator to stoop under the table-top.

I prefer to make the exterior of the door, as represented in the drawings, to correspond in appearance with the drawer-fronts of the other trunk, B .

It is also obvious that if those portions of my invention which depend upon the openings in the sides of the supporting-trunks be not used, the platform may be guided by other guides connected with the perforated top or with the supports thereof.

I claim as my invention—

1. The combination, substantially as before set forth, of the perforated top, the movable platform, the grooved guides for the slides, the trunks having openings in their sides for the ends of the platform, and the slides construct-

ed of the required breadth to close the said openings and form panels therefor.

2. The combination, substantially as before set forth, of the perforated top, the articulated folding extension-cover, and the lugs for supporting the edge of the extension-cover when opened.

In witness whereof I have hereto set my hand this 6th day of December, A. D. 1879.

JAMES BOLTON.

Witnesses:

JNO. SCOTT,
SYDNEY A. BENNETT.