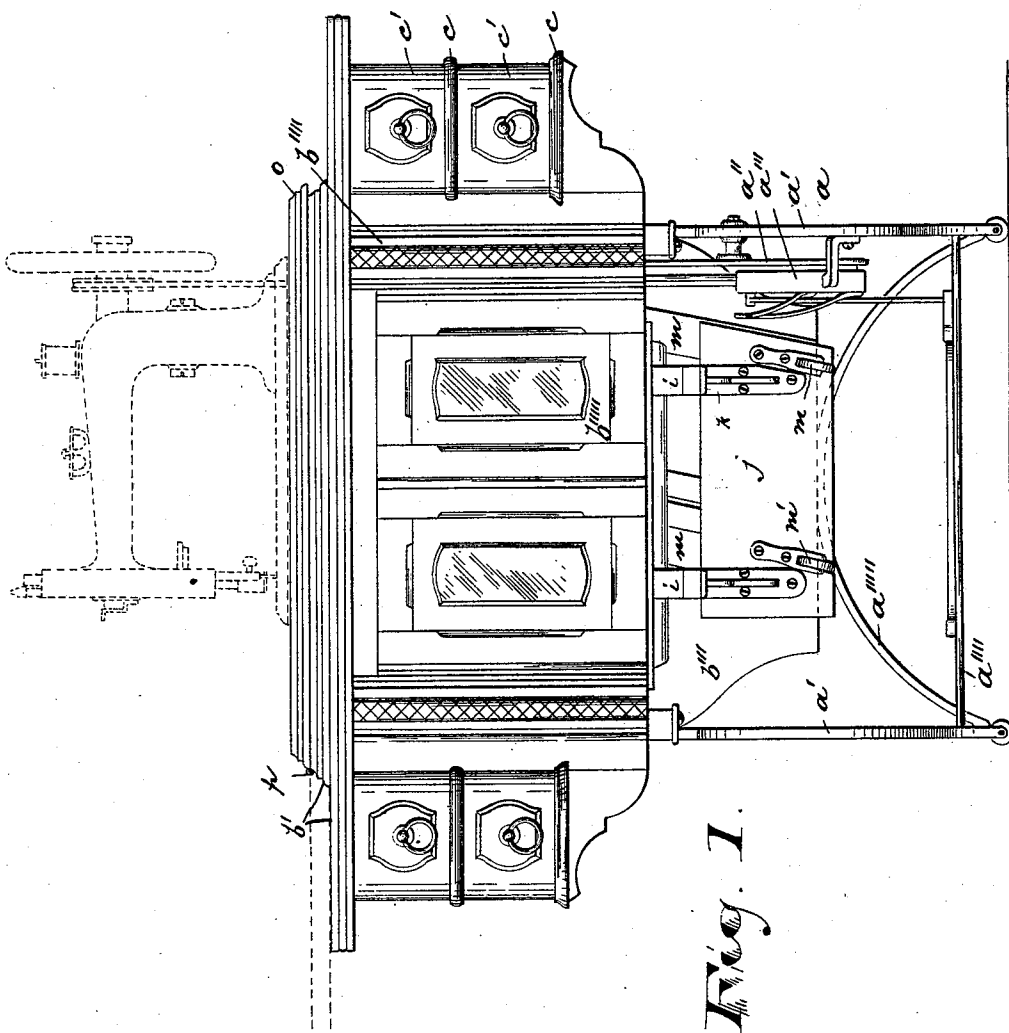


4 Sheets—Sheet 1.

No. 540,823.

Patented June 11, 1895.



Witnesses

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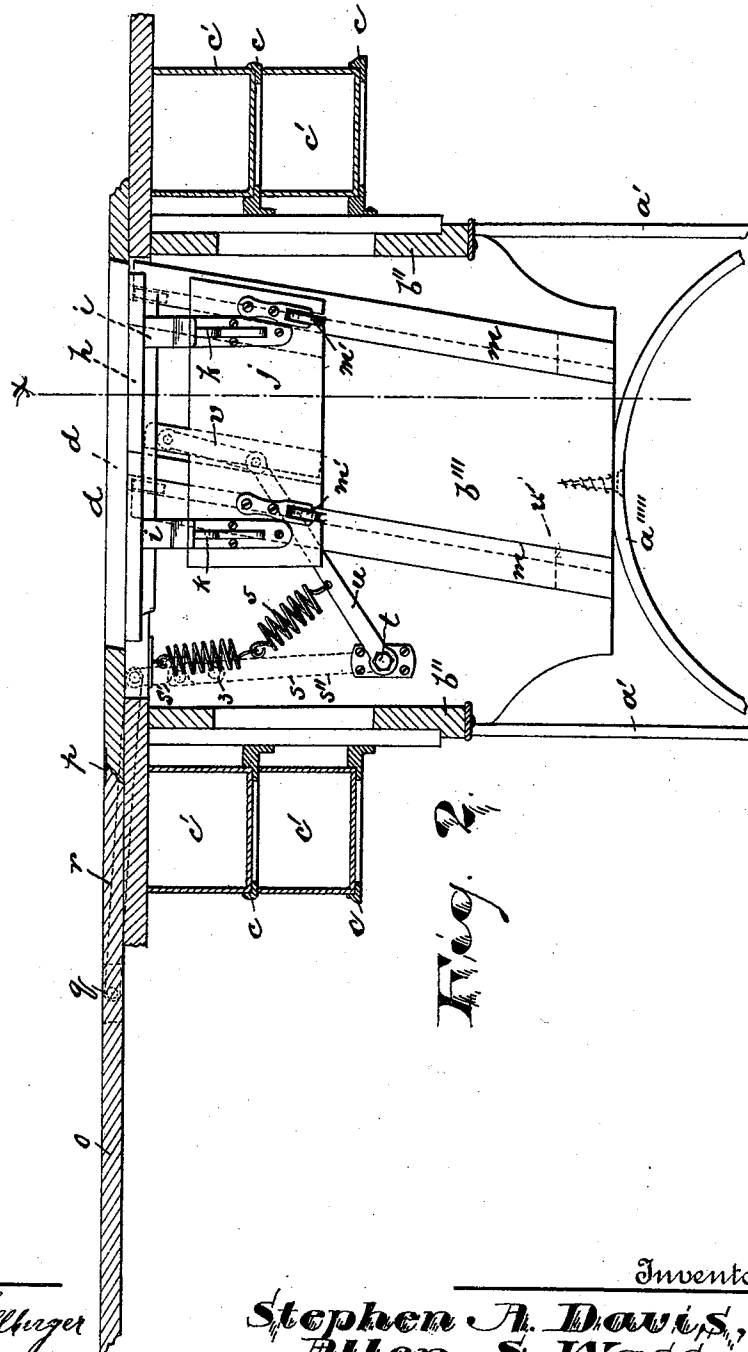
(No Model.)

4 Sheets—Sheet 2.

A. S. WASS & S. A. DAVIS.
STAND FOR SEWING MACHINES.

No. 540,823.

Patented June 11, 1895.



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(No Model.)

4 Sheets—Sheet 3.

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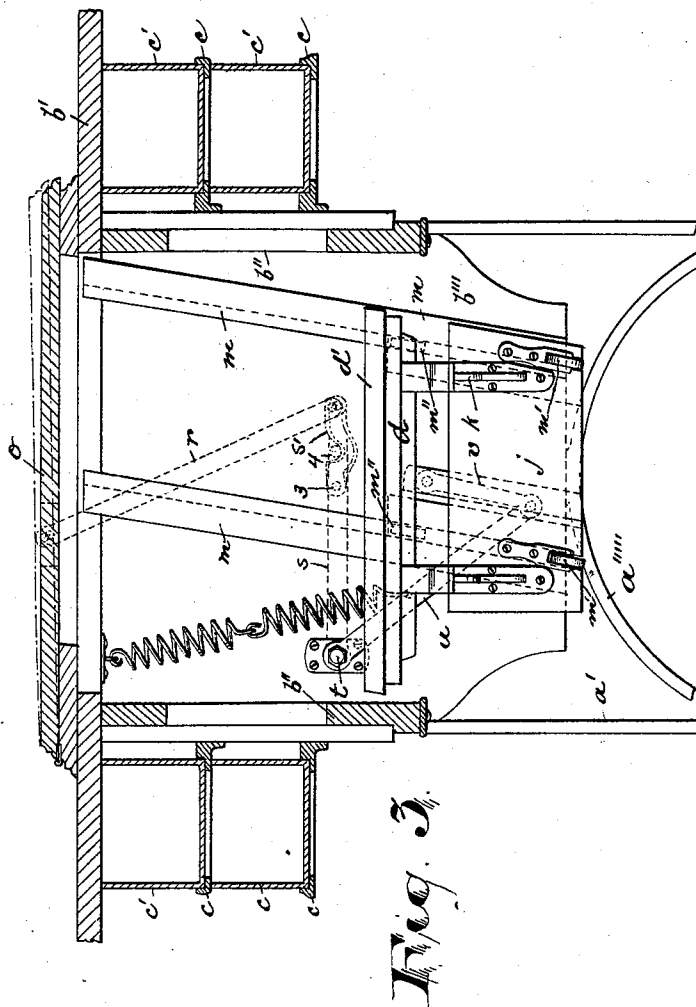


Fig. 3.

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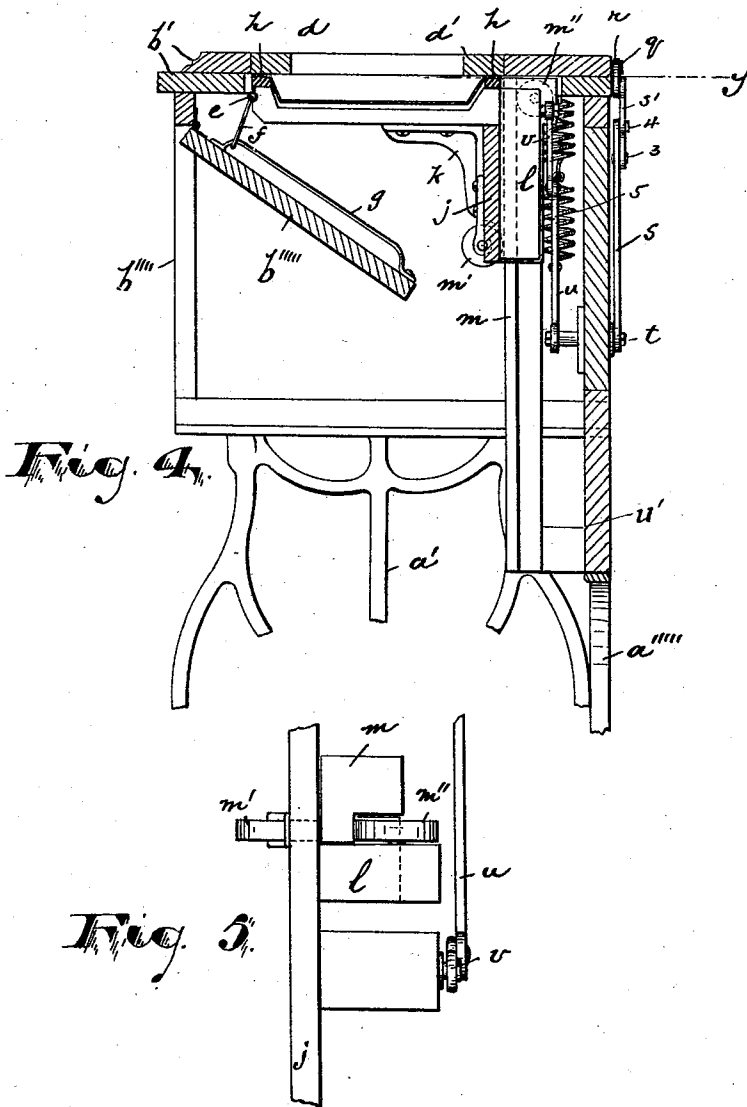
(No Model.)

4 Sheets—Sheet 4.

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Patented June 11, 1895.



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UNITED STATES PATENT OFFICE.

ALLEN S. WASS, OF BLOOMFIELD, AND STEPHEN A. DAVIS, OF NEWARK,
NEW JERSEY.

STAND FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 540,823, dated June 11, 1895.

Application filed November 14, 1894. Serial No. 528,761. (No model.)

To all whom it may concern:

Be it known that we, ALLEN S. WASS, residing at Bloomfield, and STEPHEN A. DAVIS, residing at Newark, in the county of Essex and State of New Jersey, citizens of the United States, have invented certain new and useful Improvements in Stands or Supporting-Frames for Sewing-Machines; and we 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, reference being had to the accompanying drawings, and to letters and numerals of reference marked thereon, which form a part of this specification.

The objects of this invention are to reduce the cost of construction, to provide a more simple device, and one which will secure an easier movement of parts; to prevent injury to the hands when lowering the machine head into the case, and to secure other advantages and results some of which will be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved stand or supporting frame for sewing machines and in the arrangements and combinations of parts, substantially as will be hereinafter described and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like letters and numerals of reference indicate corresponding parts in each of the several views, Figure 1 is a front elevation of the improved stand or supporting-frame, showing the sewing-head of the machine in outline. Fig. 2 is a sectional view showing the cover open and the sewing-head-supporting device at its elevated position. Fig. 3 is a similar sectional view showing said cover closed and the head-support lowered. Fig. 4 is a section taken at line *x*, showing the means employed for raising a certain front panel; and Fig. 5 is a detail showing in section at line *y* the ways or tracks and the lower part of the vertically-movable sewing-head support.

In said drawings, *a*, indicates the stand or frame, which consists of a low metal-frame having side standards, *a'*, which provide bear-

ings for the fly wheel, *a''*, its covering frame, *a'''*, and the treadle shaft, *a''''*, in any suitable and usual manner.

The side standards extend about half way up the stand and are connected at the rear by a curved brace, *a'''''*, which is centrally attached to the rear board of the upper wood work.

The upper part of the stand, *a*, is of wood work, and for convenience of description, we may term it the case, *b*. This consists of paneled plates, *b'*, *b''*, *b'''*, *b''''*, which are united together at their edges in any suitable manner to form a protecting inclosure, and are, together, secured to and are adapted to be removed from the top of the metal frame without dismembering or dissociating the parts of said metal frame, or changing the relation of the side drawers to the case. By arranging the case on the top of the iron frame, the side plates, *b''*, resting on the standards, *a'*, *a'*, and the rear plate resting on the arched top of the brace, we are enabled to attach the iron brackets or supporting plates, *c*, *c*, which carry the side drawers, *c'*, directly upon the wooden sides of the case, the drawers engaging said side plates, *b''*, or pieces applied thereto, thus producing a more compact appearance to the wood work and reducing the cost of labor, &c., involved when the said brackets have been attached to the metal frame, which, in that case, extend up to the top plate, *b'*.

The panel, *b'''''*, of the front plate, *b''''*, is hinged at its upper edge, as shown in Fig. 4, and is so coupled to the vertically movable sewing-head support, *d*, as to turn on its hinges as the lid, *o*, is raised and the support moves vertically, or approximately vertically, within the case, as will be understood upon reference to said Fig. 4, where said support is shown to be provided with a screw eye, *e*, and link, *f*, and the back of the panel, *b'''''*, with a vertical rod *g*, bent at its opposite ends and thereat provided with perforated feet by which said rod is secured to the panel and held away therefrom so that the link may slide on said rod.

As the support, *d*, rises to its elevated position, shown in Figs. 2 and 4, and draws on the link, the latter slides on the rod and the

panel is turned inward on its hinges, opening the front of the case to admit the knees of the operator seated before the machine.

The vertically movable support, *d*, on which the sewing head of the machine is seated, comprises a top plate, *d'*, adapted to fit in the opening formed in the plate, *b'*, of the frame, and lie flush therewith; longitudinal strips, *h*, at the under edges; transverse pieces, *i*, carrying said longitudinal strips; a vertical board, *j*, underlying the inner ends of said transverse pieces; iron brackets, *k*, bracing said parts *i* and *j*, and holding the same at right angles; cleats or stays, *l*, at the rear of said vertical plate which engage the sides of guide ways or tracks, *m*; rollers, *m'*, fastened on the lower end of the said vertical board at the front, as shown in Figs. 2 and 3, and bearing on the outer face of said ways or tracks, *m*, and rollers, *m''*, bearing on the rear or back of said tracks and stationed on the cleats or stays, *l*, the said rollers, *m'*, *m''*, serving to prevent the vertically movable support from binding on its ways.

The means for moving the support are in connection or train with the hinged lid, *o*, which not only serves to close the opening in the top plate, *b'*, when the sewing head is in the case, but as a hand lever by which the operator sets the mechanism for lowering or raising the support, *d*, in motion. Said lid, *o*, is hinged at *p*, to the top plate and at its rear edge, at *q*, receives a connecting rod, *r*, by which it is joined to a sectional lever arm, *s*. Said arm *s*, in turn is arranged at the back of the rear plate, *b'''*, on a bolt or shaft, *t*, having pivotal and angular bearings, the pivotal bearings lying in the said rear plate, *b'''*, a suitable journal box being provided for the same. On the inner end of the shaft or bolt, within the case, is another arm, *u*, working with the bolt, *t*, and arm, *s*, the three said parts being essentially a bell crank. The free end of the arm, *u*, is coupled to the vertical supporting plate or board, *j*, by a connecting rod, *v*, said board being blocked out at the rear to bring the parts into or close to a common plane of action, as will be understood.

The arm, *s*, is sectional, as above described, and as shown in outline in Fig. 3, so as to prevent the lid weighted by the sewing head, from pressing the fingers against the top plate, *b'*.

The lever-arm section, *s'*, in immediate connection with the lid, *o*, is pivoted at 3, upon the section, *s''*, and engages a pin, 4, of the latter said section, so that the weight of the descending sewing head holds the two sections rigid and in line, but when the said head has nearly arrived at the lower limit of its movement and the lid, *o*, is about to engage the top plate, a spring 5, takes the major part of the weight, and the arm, *u*, next impinges upon a bearing or fixture, *u'*, and is thus brought to a stop. A continued movement of the lid is allowed, however, by the jointed

arm so that the lid finally rests fully upon the top plate. The last inch or two of its movement at its end away from the hinges being due to the joint in the arm, *s*, and being without the pressure of the sewing head, the said lid will not injure the fingers caught thereunder, as will be evident. The spring, 5, is in linked sections, as shown in Fig. 2, so that, when not under tension, the sections may fold and thus not interfere with a full movement of the arm.

To enable the descending support to clear the driving wheel in its downward movement and thus allow a greater movement of the support without interference and a higher disposition of the said driving wheel in the frame, we have made the ways, *m*, *m*, on which the head support slides, inclined, as shown in Figs. 2 and 3, and the said support is thereby guided away from the said driving wheel.

In operating the device, on raising the lid, *o*, the connecting rod is drawn upon so that its sections are first brought into rigid relation, and then the arm as a whole is turned with the bolt, *t*, and outer arm, *u*. This latter arm and its connecting rod, throw the support to its upper position on the ways, *m*, and the top plate, *d'*, is brought flush with the frame top plate, *b'*. At the same time, the hinged front panel is raised as already described. A reversal of the parts lowers the head into the case, where it is protected.

Having thus described the invention, what we claim as new is—

1. In a sewing machine stand, the combination with case having the open top plate *b'*, and the hinged lid, a sewing head support arranged in said case, connections of said lid and sewing head support whereby when said lid is open the said support is raised to bring the sewing head above the top plate, a loose joint being provided in said connections to avoid a direct pressure of the sewing head and attachments upon the lid near the limit of its closing movement, substantially as set forth.

2. The improved sewing machine stand or supporting frame herein described, in which is combined with the iron frame and case having a hinged front panel, *b''''*, a vertically movable sewing head support connecting with the lever-like lid, said lid and connections, a link and eye, *f*, *e*, secured to the said vertically movable support and a rod, *g*, bent at opposite ends and thereat engaging the back of said panel, said link sliding on said rod, substantially as set forth.

3. In a stand for sewing machines, the combination with ways, *m*, *m*, of a vertically movable sewing head support, and a train of levers for operating the same, said train including therein a sectional arm one section of which is free to work on the other at the limit of movement, so that the hand lever of the train will not press the hand between it and adjacent parts, substantially as set forth.

4. In a sewing machine stand, the combina-

tion with the case having the open top plate, 6', and hinged lid to close the opening therein, a sewing head support movable within said case, a train of connections of said lid 5 with said sewing head support, one of the arms or sections of said train being limited in its movement to prevent a continued descent of the support and another arm or section of said train being jointed to admit a continued 10 movement of the lid devoid of the weight of the sewing head and attachment, and means for limiting the descent of the support, substantially as set forth.

5. The combination, in a sewing machine 15 stand, of a vertically movable sewing head support, a lid, a bell crank and connections of said crank with the lid and support, one of the arms of said crank being in pivotal sections one of which is provided with a bearing 20 projection, 4, substantially as set forth.

6. In a sewing machine stand or supporting frame, the combination with the sewing head support, having rollers, a lever-like lid and hinged front panel, of a bell crank, and connections in train with said lid and support and 25 links connecting said front panel and support, whereby, when the lid is raised and the bell crank turned on its pivot or fulcrum, the support will be raised and the panel turned inward simultaneously, substantially as set 30 forth.

In testimony that we claim the foregoing we have hereunto set our hands this 18th day of October, 1894.

ALLEN S. WASS.
STEPHEN A. DAVIS.

Witnesses:

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