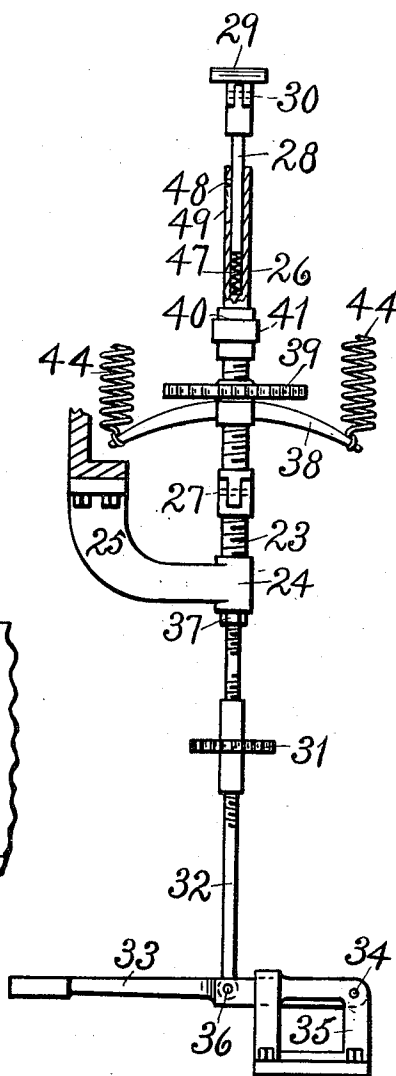
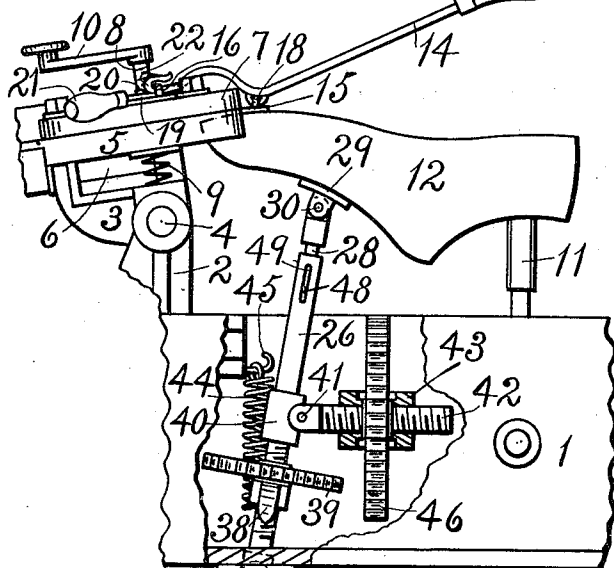
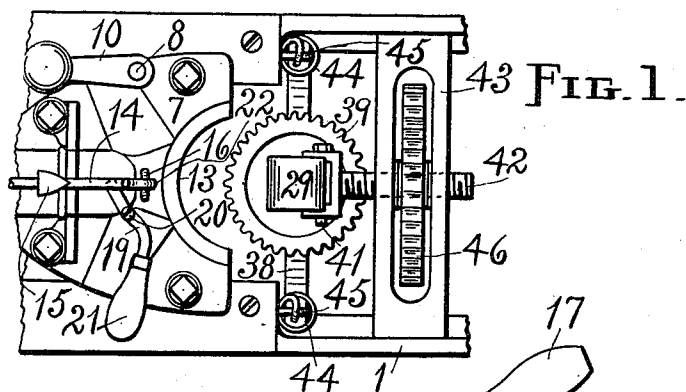


1,012,998.

Patented Dec. 26, 1911.



WITNESSES:

J. M. Davenport.
 R. M. Schick.

INVENTOR.

John J. Doidge,
 BY Webster & Co.,
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UNITED STATES PATENT OFFICE.

JOHN J. DOIDGE, OF SOUTH FRAMINGHAM, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO R. H. LONG MACHINERY COMPANY, OF SOUTH FRAMINGHAM, MASSACHUSETTS, A CORPORATION OF CONNECTICUT.

WORK-SUPPORT.

1,012,998.

Specification of Letters Patent.

Patented Dec. 26, 1911.

Original application filed June 12, 1909, Serial No. 501,721. Divided and this application filed June 22, 1910. Serial No. 568,274.

To all whom it may concern:

Be it known that I, JOHN J. DOIDGE, a subject of the King of Great Britain, residing at South Framingham, in the county of Middlesex and State of Massachusetts, have invented a new and useful Work-Support, of which the following is a specification, the same being a divisional part of my application filed in the United States Patent Office June 12, 1909, Serial No. 501,721.

My invention relates to improvements in supporting means for lasts, and consists of certain parts and combinations of parts, all as hereinafter set forth.

My work support is particularly and especially adapted for a lasting machine, and serves in connection with the ordinary post-jack or equivalent device to uphold a last and secure the same in place, the new appliance engaging the last at the toe end while the aforesaid post or equivalent device engages said last at the heel end as usual.

It is necessary in lasting machines to support the toe of a last quite firmly, and this is one of the objects of my invention.

Among other objects attained by said invention, mention may be made of the adjustment afforded in this support, whereby the same can be easily and quickly adapted to a last of any size or shape, and of the facility with which said support is operated.

These and other objects are attained by the means illustrated in the accompanying drawings, in which—

Figure 1 is a top plan of my invention and of so much of a lasting machine as is needed to carry the same, the work-supporting members being inactively disposed; Fig. 2, an elevation of the major portion of the invention, showing the same in actual service as applied to a last, portions of the lasting machine being here present also, together with the last, and, Fig. 3, a detailed elevation in partial section of the last-toe-supporting mechanism which appears in the preceding view below the last, such mechanism here being viewed from a position at the right of corresponding parts in said preceding view and being inactive.

Similar figures refer to similar parts throughout the several views.

The parts of the lasting machine represented in the drawings are described briefly

as follows: At 1 is a bed slidably mounted upon which in suitable slideways is a carriage 2. A carrier 3 is pivotally mounted at 4 to the carriage 2, and a wiper head 5 is pivotally mounted at 6 to said carrier. Bolted to the head 5 is a cover plate 7. An adjusting screw for the head 5 appears at 8, and a spring with which such screw co-operates appears at 9. 10 is a handle on the adjusting screw 8. Mounted for vertical adjustment in the usual manner is a post or jack 11, at the right of the carriage 2, and a last 12 is mounted at its heel end on said jack. The toe end of the last 12 extends to the left into the recessed portion 13 of the wiper head 5. These parts are all generally old, hence their functions will be understood without explanation.

Means for depressing the toe of the last, which means is used in connection with the support beneath said toe, or more correctly perhaps beneath the instep of the last, as will presently be more fully explained, and in reality constitutes a part of the work support, since it is of the nature of a support, as will presently appear, takes the form of a depressor which consists of a bent rod 14 and a foot-piece 15. The depressor rod 14 has one end pivotally attached at 16 to the cover plate 7 and is provided at the opposite end with a handle 17. The foot-piece 15 is loosely connected at 18 with the rod 14, such connection being at a point which will enable said foot-piece to be brought down onto the last, or onto the insole of a shoe thereon, a short distance from the extreme toe end of said last. A latch 19 may be provided for the depressor. This latch is pivoted intermediate of its ends at 20 to the aforesaid cover plate and has a handle 21. The location of the latch 19 on the plate 7 and relative to the pivot 16 is such as to permit said latch to be moved by the handle 21 so as to bring the rear end of the latch beneath a short projection 22 at the pivotal end of the depressor rod 14 when the latter is in operative position, such projection then lying immediately to the left of said pivot 16. The operation of the depressor and its latch will be more fully explained in connection with the mechanism or appliance described below.

The appliance or device just referred to,

which may be termed a column support for the toe or instep of a last, comprises a vertical rod 23 slidably mounted in a sleeve 24 at the back end of an angular bracket 25 which is securely bolted to the bottom of the bed 1, a second rod 26 upwardly spring-pressed and pivoted to the first at 27 in such a manner that said second rod can swing in the longitudinal central plane of the last 12, within which plane said rods are situated, an upwardly spring-pressed plunger 28 carried by said rod 26 and supporting a rest 29 which is pivoted at 30 to the head of said plunger, the pivot 30 being parallel with the pivot 27, a turn-buckle 31 and an extension 32 of the rod 23, and a treadle 33. Said treadle is pivotally connected at 34 with a fixed frame 35 which may be so constructed as to limit the upward movement of the treadle. The extension 32 is pivoted at 36 to the treadle 33, and the turn-buckle 31 connects adjacent terminals of said extension and the rod 23, which terminals have right and left screw-threads to engage similar screw-threads in said turn-buckle. This turn-buckle provides for increasing or decreasing the length of the supporting column for the rest 29. A check-nut 37 threaded to the rod 23 below the sleeve 24 limits the upward movement of said rod and permits such limit of movement to be changed.

Loosely mounted on the rod 26 is a cross-bar 38, threaded to said rod above said cross-bar is an adjusting wheel 39, and loose on the rod above said wheel is a sleeve 40 to the right-hand side of which at 41 is pivoted one end of a horizontal screw 42 loosely mounted in a slotted cross-piece 43 extending between the front and back sides of the bed 1. The cross-bar 38 is tensioned upwardly against the wheel 39 by two springs 44, each of which springs is attached at the lower end to one end of said cross-bar and at the upper end to a hook 45 fastened to the bed 1. The tension of the springs 44 is varied by turning the wheel 39 up or down on the rod 26 to decrease or increase such tension. An adjusting wheel 46 is mounted on the screw 42, in threaded engagement therewith, between the sides of the slot in the cross-piece 43, and by turning this wheel in one direction the rod 26 is rocked on the pivot 27 to the right, and by turning said wheel in the opposite direction said rod is rocked to the left, provision thus being made for positioning the rest 29 at any point longitudinally of the instep of the last 12. A comparatively light spring 47 is placed in the bore in the rod 26 for the plunger 28 and serves to press the latter upwardly, and there is a pin 48 which projects from said plunger into a slot 49 in said rod to limit the upward movement of the plunger and prevent the same from turning. The above-

described column support for the last 12 is capable of being adjusted to this or any last with great exactitude, as will be readily perceived. In practice, after the column support has been properly adjusted through the medium of the turn-buckle 31, check-nut 37, and wheels 39 and 46, the depressor rod 14 is swung over with its foot-piece 15 on the last, the treadle 33 is depressed to draw down said column support against the resiliency of the springs 44, said rod is forced down until the upper surface of the toe of said last is carried down on a level with the underside of the wipers (not shown) in the head 5, the latch 19 is moved into position to lock the depressor rod, and said treadle is released to allow the rest 29 to be firmly set against the last instep. Thus the last is securely held at the toe as well as at the heel.

A last with a shoe in process of manufacture thereon, when placed on the jack 11 and secured by means of the supporting devices at the toe end, which devices firmly grasp said last at such end in the manner just described, is in readiness for the wiping operations. After such operations have taken place, the treadle 33 is depressed long enough to allow the depressor to be unlatched and thrown over to the left out of the way of the last, and when this has been done said last with its shoe is removed from the jack.

I do not desire to be unduly limited in matters of detail in construction, since more or less variation may be needed in order to meet different requirements.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a lasting machine, with a last mounted in the machine, and a yielding support for the toe of said last, of a depressor rod loosely mounted at one end on the machine and having a handle portion at the other end, and a foot-piece attached to said rod intermediate of its end, such rod being adapted to swing in an approximately vertical plane whereby it is capable of being swung over with said foot-piece on said toe and of depressing the latter.

2. The combination, in a lasting machine, with a last mounted in the machine, and a yielding support for the toe of said last, of a depressor rod having a latch-engaging projection at one end and loosely mounted at such end on the machine, and said rod having a handle portion at the other end, a foot-piece attached to said rod intermediate of its ends, such rod being adapted to be swung over with its foot-piece on said toe and to depress the latter, and a latch arranged to enter beneath said projection to prevent said rod from being swung upwardly on its pivot.

3. The combination, in a lasting machine, with suitable supporting members one of

which is also a guiding member, of a rod extending through the supporting and guiding member, a second rod pivotally attached to the first and designed to support a toe or instep rest, a sleeve on such second rod, and screw-threaded means connected with said sleeve and mounted in the other supporting member to rock and adjust the second rod on its pivot.

4. In a lasting machine, a column last support comprising a supporting member, a combined supporting and guiding member, lower turn-buckle-connected rods the upper of which extends through said last-mentioned member, a rod pivotally mounted directly on the upper of said first-mentioned rods above said combined supporting and guiding member, an upwardly spring-pressed plunger and rest carried at the upper terminal of the aforesaid pivotally-mounted rod, and screw-threaded means mounted in said first-mentioned member for the lateral adjustment and support of said pivotally-mounted rod.

5. In a lasting machine, a column last support comprising upwardly spring-pressed jointed rods, an upwardly spring-pressed plunger and rest at the upper end of one of such rods, such plunger and rest being free to move downwardly subject to their spring, means to limit the upward movement of said

rods, and means to adjust said upper rod in the plane of the longitudinal center of a supported last out of line with the lower rod.

6. The combination, in a lasting machine, with a sleeve, of a rod extending through such sleeve, means to limit the upward movement of such rod, a second rod pivotally attached to the first, an upwardly spring-pressed cross-bar and an adjusting wheel therefor on such second rod, a sleeve also on such second rod, means connected with said last-mentioned sleeve to rock the second rod on its pivot, and an upwardly spring-pressed plunger and rest carried at the upper terminal of said second rest.

7. The combination, in a lasting machine, with the frame of the machine, and a suitable supporting and guiding member, of a rod extending through such member, a second rod pivotally attached to the first above said member and designed to support a toe or instep rest, a cross-bar mounted on said second rod above its pivotal point, and springs between said frame and the ends of said cross-bar to urge upwardly the latter with said rods.

JOHN J. DOIDGE.

Witnesses:

LYNETTE CLARK,
JOHN H. TEMPLE.

It is hereby certified that the assignee in Letters Patent No. 1,012,998, granted December 26, 1911, upon the application of John J. Doidge, of South Framingham, Massachusetts, for an improvement in "Work-Supports," was erroneously described and specified as "R. H. Long Machinery Company," whereas the said assignee should have been described and specified as *The R. H. Long Machinery Company*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 13th day of February, A. D., 1912.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.