

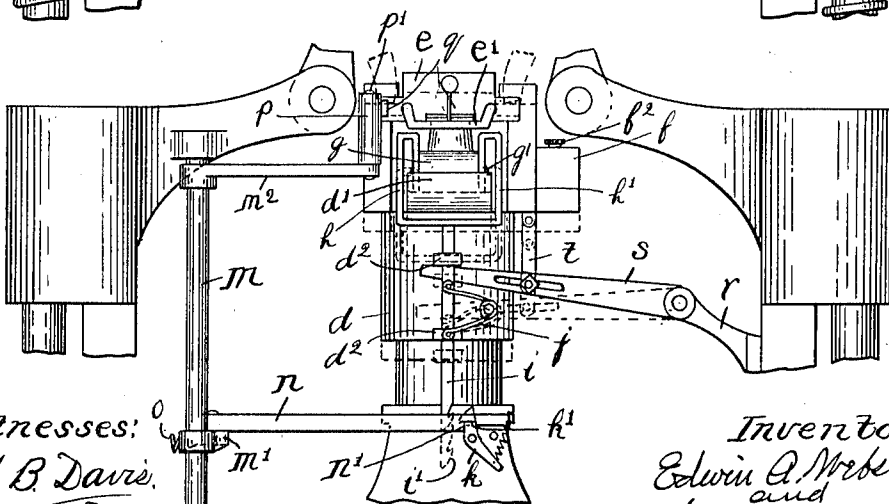
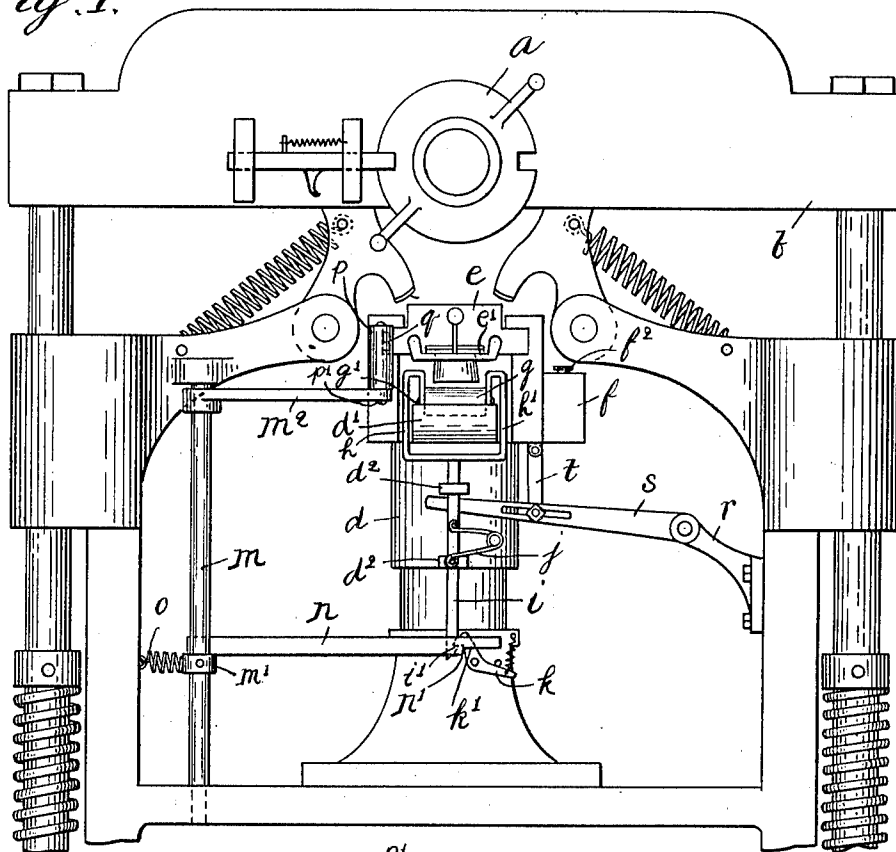
E. A. WEBSTER & C. R. TOWLE.
CEMENTING ATTACHMENT FOR HEEL NAILING MACHINES.
APPLICATION FILED JULY 18, 1905.

1,064,114.

Patented June 10, 1913.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:

H. B. Davis.

Cynthia Doyle

Fig. 2.

Inventors:

Edwin A. Webster

and

Chas. R. Towle

By Noyes Hamman

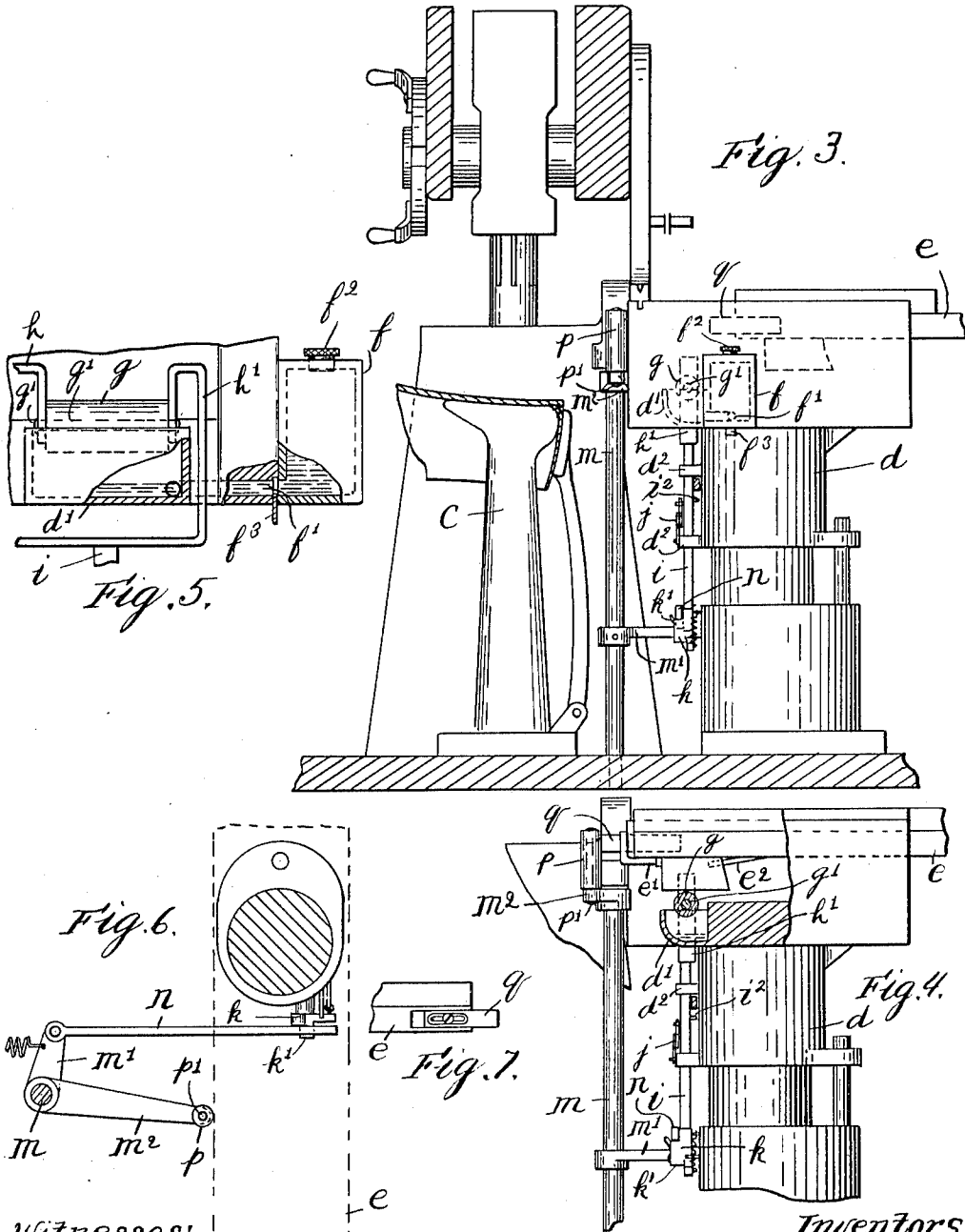
Attys

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H. B. Dana & g
Cynthia Doyle

Inventors:

Edwin A. Webster
and
Chas. R. Towle
By Noyes Hamura
Attys

UNITED STATES PATENT OFFICE.

EDWIN A. WEBSTER AND CHARLES R. TOWLE, OF HAVERHILL, MASSACHUSETTS, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

CEMENTING ATTACHMENT FOR HEEL-NAILING MACHINES.

1,064,114.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed July 18, 1905. Serial No. 270,297.

To all whom it may concern:

Be it known that we, EDWIN A. WEBSTER and CHARLES R. TOWLE, both of Haverhill, county of Essex, State of Massachusetts, have invented an Improvement in Cementing Attachments for Heel-Nailing Machines, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

In the manufacture of boots and shoes it is, at times, desired to secure heels to boots or shoes not only by means of nails but also by cement. By cementing together the heel seat faces of the heel and the shoe, a more close and permanent union between said faces is obtained than is possible with the use of nails alone, especially at the edge of the heel where a perfect joint is particularly desired. The use of cement is particularly advantageous in attaching heels of considerable pitch since by its use it is possible to secure firmly to the sole the rear part of the heel which is likely to be unperforated by the attaching nails.

Heretofore in practice where cement has been employed to assist in securing heels to shoes it has been applied by hand. This procedure not only occasions some delay in the operation of the heeling machine, but is also liable to be improperly performed. For instance there is considerable liability of an improper amount of cement being applied or of its application in an improper manner. The primary object of the present invention is to provide a heeling machine with mechanism whereby the operations incident to cementing a heel to a shoe may be mechanically performed. To this end our invention consists primarily in a heeling machine having, in addition to mechanism for attaching a heel to a shoe by means of nails, provision for securing the heel by means of a predetermined amount of cement. The amount of cement used for a heel may thus be accurately controlled and waste of cement is accordingly avoided, and at the same time the application of a sufficient amount to secure the heel firmly is insured.

A further feature of the invention which is of importance consists in cement applying means constructed and arranged to apply cement over a predetermined area of the faces which are cemented together. Here-

fore in attaching heels, cement has been commonly applied without any effort to limit its application to any particular portion of the faces to be secured. It will be observed, however, that a considerable part of the breast portion of the heel is subsequently removed in breasting and it is, therefore, unnecessary to cement this part of the heel to the shoe. Moreover, it is particularly disadvantageous to do so, since, if the portion severed from the heel in the breasting operation has been previously cemented to the sole, there is difficulty in disengaging it from the sole. Furthermore, the cement thus left upon the shank part of the sole after breasting is objectionable, since it is necessary to carefully remove it before finishing the bottom of the shoe. It will be seen, therefore, that it is desirable that the cementing operation be so performed that at the end of the heel attaching operation no cement is present upon the cemented faces adjacent to the breast of the heel, or upon the bottom of the sole at the shank. The cement applying mechanism herein disclosed is accordingly arranged to apply cement in such a manner that the application of cement is limited to the rear portion of the faces which are cemented together, and the portions adjacent to the breast of the heel are free from cement. The construction is also such that the area covered by cement may be varied if desired.

The invention is herein shown as embodied in a heeling machine in which a heel carrier is arranged for movement in a horizontal path forwardly and rearwardly and also, when in its forward position, vertically toward and from a jack or shoe support. The cement applying device is so arranged that it may be moved into engagement with a heel on the carrier while the carrier is in the rear of the jack and in its upper position, that is, positioned in its horizontal path.

It is believed that a cementing device has not been heretofore employed with a heel carrier of the character above set forth, and, accordingly, this combination constitutes an important feature of the invention, although in many of its features the invention is not limited to such combination. The cement applying device is arranged for movement in a path intersecting the path of the heel on the carrier, so that, in the movement of

the heel into attaching position, said device may be brought into engagement with the tread face of the heel. The arrangement is such that the heel is moved with its breast
 5 in advance and the cement applying device may be so timed in its operation that it may be brought into engagement with the heel after the breast portion of the heel has moved beyond its range, thus restricting the
 10 application of cement to the rear part of the heel. Provision is made for varying the time of movement of the cement applying device, so that the area of the heel covered by cement may be varied.

15 Other features of the invention will be hereinafter described and defined in the claims.

In the drawings, which illustrate a portion of a heeling machine constituting one embodiment of the invention, Figure 1 is a
 20 view in front elevation of said portion; Fig. 2 is a view in front elevation showing in a different position the principal parts illustrated in Fig. 1; Fig. 3 is a view in side elevation of the parts illustrated in Fig. 1;
 25 Fig. 4 is a view similar to Fig. 3, showing the parts in a different position; Fig. 5 is a detail front view, partly in section of the cement containing tank and supplying cup. Fig. 6 is a detail plan view of the roll releasing mechanism. Fig. 7 is a detail view
 30 of the releasing finger.

The heeling machine illustrated is of a well known type having the usual turret *a*
 35 mounted on the vertically movable cross head *b*, the jack *c*, and the clamping head *d*, in which a horizontally sliding heel carrier *e* is mounted, said carrier being provided with clamping means *e'*, *e''*, for supporting
 40 an inverted heel on its under side midway between its guide ways. For a more detailed description of the construction and organization of machines of this type reference may be had to United States Letters
 45 Patent No. 982,550, granted January 24, 1911 on an application of C. R. Towle.

In the ordinary operation of this machine the heel to be attached is connected to the under side of the carrier *e* when the latter
 50 is drawn rearwardly to the position shown in Fig. 3, then the carrier is pushed forward until the heel is directly over the heel of the jack, the cross head is lowered and the head *d* is moved downwardly pressing the
 55 heel against the heel seat of the shoe and then the heel nails are driven from nail passages in the carrier plate *e* through the heel to secure it in place.

In carrying out our invention a cement
 60 cup *d'* is provided on the front side of the head *d* midway between the carrier guide-ways thereof, and a cement tank *f* is secured to one side of the head, said tank being connected by a passage *f'* to the cup *d'*
 65 at a point adjacent its bottom. The tank *f*

is closed at the top and made air tight so that the cement can only pass from the tank to the cup upon the lowering of the cement in the cup sufficiently to permit air to pass through the passage *f'* into the tank. The
 70 cement is thus maintained at a constant level in the cup *d'*. The tank is preferably provided with a filling cap *f''* and a valve *f'''* for closing the passage *f'* while the tank is being filled. A rod *i* is mounted in lugs *d''*
 75 formed on the head *d* so that it may slide vertically therein, and a pair of arms *h*, *h'* are connected to the upper end of said rod and pass upwardly at each end of the cup *d'* at the middle thereof, then extend toward
 80 each other and then down within the cup. A roll *g*, preferably having an absorbent surface, as felt, is journaled on a shaft *g'*, which extends between said downwardly extending portions of said arms. The lower
 85 end of the rod *i* is provided with a tooth *i'*, and a spring actuated pawl *k* is mounted on the stationary portion of the machine in position to engage said tooth *i'* automatically, and hold said rod from upward movement. A spring *j* is connected to the lower
 90 lug *d''* and to a pin on the rod *i*, and acts constantly to move said rod upwardly. A vertical shaft *m* is journaled in the frame of the machine and crank arms *m'*, *m''*, are respectively secured thereto, one below the
 95 other. A bar *n* is pivoted at one end to the lower crank arm *m'* and rests upon a shoulder *k'* formed on one side of the pawl *k* adjacent its tooth, said bar being provided
 100 with a shoulder *n'*, so that when rod *m* is rotated to the right the bar will be moved longitudinally toward the pawl *k*, causing its shoulder *n'* to engage the shoulder *k'* of
 105 of the pawl *k* and swing the latter out of engagement with the tooth *i'* of the rod *i*. A spring *o* is connected to the arm *m'* and constantly tends to rotate shaft *m* to the left and a roll *p* is journaled on a vertical
 110 spindle *p'* mounted in the extreme end of the upper arm *m''*. A horizontally adjustable finger *q* is secured to the front end of the carrier *e* and projects in front thereof, see Fig. 7, being arranged to engage the roll
 115 *p* when the carrier *e* is advanced. A bracket *r* is secured to the frame of the machine and a lever *s* is pivoted thereto at one end and extends in the rear of the rod *i* directly above a pin *i''* secured in said rod. A link *t* is pivotally connected at its upper end to
 120 the head *d*, and at its lower end to the lever *s* at an intermediate point therein, which may be varied by any suitable means, as the pin and slot connection shown.

The parts being in the position shown in
 125 Fig. 1, in which the roll *g* is held down by pawl *k*, and has previously been dipped in cup *d'* and provided with a suitable quantity of cement, the operation is as follows:—The heel having been attached to the under side
 130

of the carrier *e*, the latter is pushed forwardly and as it is pushed forwardly the front end of the finger *q* engages the roll *p* swinging arm *m*² forwardly until the roll begins to run on the side of said finger. This movement causes the shoulder *n'* of bar *n* to be forced against the shoulder *k'* of pawl *k* moving the latter sufficiently to permit it to liberate the rod *i* and permit the spring *j* to throw the roll *g* into engagement with the under side of the heel. Finger *q* is so adjusted that the rod *i* is not released until the front portion of the heel has passed over roll *g*, so that the roll will engage the under side of the heel at some point in the rear of the breast, and, as the heel is carried forward, the roll will run on the under side thereof to its back end, coating the portion of the surface thereof which it touches with cement. The rotation of the roll *g* also brings its freshly dipped surface uppermost leaving it in position to engage the succeeding heel blank. The heel carrier having been moved forward to the proper position, the cross head is lowered, and, as it is lowered, the head *d* will be forced downwardly to press the heel upon the heel seat of the shoe. The downward movement of the head *d* causes the lever *s*, through its link *t*, to swing downwardly, and, as the spring *j* will have previously moved pin *i*² on the rod *i* against said lever, which thus serves as a stop, the rod will also be forced downwardly against the action of the spring *j*. As the end of the lever *s* will travel through a greater distance than the head *d*, the cement roll will be carried down to the dotted line position of Fig. 2, in which position the roll will be dipped into the cement of the cup *d'*. As soon as the heel is nailed on, the carrier is drawn back so as to permit the top lift to be spanked on in the usual manner by a subsequent operation, and as soon as the carrier is drawn back the spring *o* will be free to swing back arms *m'*, *m*², and draw the bar *n* out of engagement with the pawl *k*, permitting the latter to be returned to its normal position by its spring. As the head *d* is lifted at the end of the spanking operation the lever *s* will be lifted, permitting spring *j* to lift the roll *g* until tooth *i'* is caught by the pawl *k*, holding the roll a short distance above the surface of the cement in cup *d'*, as shown in Figs. 1 and 4. While the carrier *e* is being pushed forwardly, after liberating the cement roll and while it is being returned, the roll *p* will run along on the side of the carriage until both the carriage and finger *q* have been drawn back of the front end of the ways of the head *d*, against which roll *p* will be swung.

It will be understood that in the machine to which the present embodiment of the invention is shown applied the head *d* is de-

pressed both in the operation of driving the attaching nails and in the operation of spanking a top lift upon a heel. In the first reciprocation of the head *d* which is effected in driving the attaching nails the pawl *k* is not free to engage the tooth *i'* on account of the engagement of the bar *n* with said pawl. At the end of the nail driving operation the carrier *e* is retracted, thus moving the bar *n* out of engagement with the pawl *k*. In the second reciprocation of the head *d* which is effected in attaching the top lift, the pawl *k* engages the tooth *i'* and arrests the upward movement of the roll *g*. It will be seen, therefore, that the roll *g* is dipped twice into the cement in cup *d'* before it is brought in contact with a heel to be attached.

From the foregoing description it will be apparent that the cement roll may be released at any time desired, during the forward movement of the carriage, by varying the point at which the finger *q* will engage the roll *p*, so that the cement may be applied to any portion of the heel from the rear end thereof, and all possibility of cement being applied to the portion of the heel which is subsequently removed is avoided. As the roll is not liberated until a portion of the heel has passed over the same there is no possibility of the front edge of the heel catching upon the roll. As the cement in cup *d'* is always maintained at a certain level, we are enabled to adjust the parts so that only a sufficient quantity of cement is applied to the roll each time it is dipped in the cup to enable it to apply the desired quantity to the heel.

It will be seen that the adjustable connection between the link *t* and the lever *s* permits the extent of downward movement of the roll *g* to be varied. Since the cement in cup *d'* is at all times at the same level, the depth to which the roll *g* is dipped into the cement can be accurately fixed. The amount of cement which is taken up by the roll in the cup *d'* may thus be varied to meet different requirements. For example, where it is desired to vary the area of the heel covered with cement the parts may be adjusted to change the depth to which the roll is dipped in the cement, and thus cause the amount of cement taken up by the roll to be sufficient to cover the area to be coated.

It will be understood that various modifications in the construction shown could be made without departing from the present invention. The embodiment of the invention herein illustrated is shown by way of example and not by way of limitation.

The term "heel-blank" employed in the appended claims is intended to cover either an entire heel or any part thereof. It will be obvious from the above description that many features of the present invention may

be embodied in a device for applying cement to top lifts rather than to the body part of a heel.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:—

1. In combination with a heeling machine, a jack, a turret located above the jack, and a heel carrier movable independently of the turret toward and away from a position between the jack and the turret, a cementing device and means for moving said device into engagement with the heel as it is carried toward the jack by said carrier at a predetermined point in its travel, substantially as described.

2. In combination with a heeling machine, a jack and a heel carrier movable toward and away from the jack, a cementing device actuated to move transversely of the path of said carrier into engagement with the heel as it is carried thereby, means for locking said device at one side of said path, and means for releasing the same, operated by the carrier when it reaches a predetermined point in its travel toward the jack, substantially as described.

3. In combination with a heeling machine, a jack, and a heel carrier movable toward and away from the jack, a cementing roll mounted to rotate about an axis at right angles to the path of the carrier, and means for bodily moving said roll in a rectilinear path transversely of the path of the carrier into engagement with the heel as it is carried thereby toward the jack, and means for withdrawing said roll to one side of said path, and for supplying it with cement at the end of each operation, substantially as described.

4. A machine of the class described, having in combination, means for sustaining a heel-blank in inverted position with its heel seat surface exposed, a cement carrying device, means for applying cement to said device having provision for varying the extent of surface upon said device covered with cement by said means, and mechanism for bringing said device into contact with the heel-blank.

5. In a heeling machine, a jack, a heel carrier horizontally movable toward and away from the jack, and having means for supporting a heel on its under side, a cementing roll supported beneath the carrier and means for moving said roll vertically into engagement with the under side of the heel arranged to operate automatically when the latter is in a predetermined position, substantially as described.

6. In a heeling machine, a jack, a heel carrier horizontally movable toward and away from the jack, and having means for supporting a heel on its under side, a cementing roll supported beneath the carrier,

and means, rendered operative by said carrier when it reaches a predetermined point in its movement toward the jack, for moving said roll into engagement with the heel, substantially as described.

7. A heeling machine having, in combination, drivers for inserting heel attaching nails, a reciprocatory heel carrier, a nail plate in said carrier, means for supporting a heel blank in inverted position below said nail plate with its heel seat surface exposed, a cement cup, a cement applying roller movable from said cup to engage a heel at the rear of its breast edge when the nail plate is out of alinement with said drivers, said roller being held in engagement with the heel during a portion of the movement of the carrier into alinement with said drivers whereby the rear portion of the heel seat is coated.

8. A heeling machine, having, in combination, means for attaching a heel to the sole of a shoe and mechanism for applying cement to the heel-seat face of one of said parts prior to the attaching operation arranged for adjustment to vary the area covered with cement.

9. A heeling machine having, in combination, a shoe support, a carrier plate movable in a horizontal path to convey a heel blank from cement receiving position in the rear of the shoe support into vertical alinement with and above a shoe on said support, said carrier being also movable in a vertical path to position the heel blank on the shoe, a cement applying device, means tending to move yieldingly said device into engagement with the heel blank on the carrier, and a dog for locking said means against action during one part of the cycle of the machine but arranged to permit its action during another part of the cycle.

10. A heeling machine having, in combination, heel nailing mechanism, a reciprocatory heel carrier movable to convey an inverted heel blank from cement receiving position breast foremost into alinement with said nailing mechanism, a cement cup, a cement applying roller movable from said cup to engage a heel on said carrier in a position at the rear of the breast of the heel, the movement of said carrier serving to draw the rear portion of the heel seat surface of the heel over the roller while the latter is held in operative position.

11. A heeling machine, having, in combination, means for sustaining a heel-blank, a cement applying device and mechanism for moving said device into engagement with a predetermined portion of the inner face of the blank and for thereafter moving relatively said device and blank longitudinally of the heel.

12. A heeling machine having, in combination, a shoe support, a gang of drivers

mounted for reciprocation in alinement with said support, a heel carrier constructed and arranged to bring an inverted heel blank breast foremost from the rear of a shoe on said support into alinement with and between said support and drivers, a cement receptacle below the path of a heel blank on said carrier, and a cement applying roller movable from said receptacle into engagement with the heel seat surface of a heel blank in a position at the rear of the breast, thereafter said blank and roller being relatively movable longitudinally of the blank to coat the rear portion of the heel seat surface.

13. A heeling machine, having, in combination, a turret carrying drivers, a heel-blank carrier movable horizontally from receiving position into attaching position beneath the drivers of the turret, a cement applying device movable from a cement receiving position into the path of the blank, and mechanism for moving said device into engagement with the blank arranged to be brought into action in the horizontal movement of said blank.

14. A heeling machine, having in combination, a turret carrying drivers, means for carrying a heel-blank breast foremost into attaching position beneath the drivers of the turret, a cement applying device arranged normally out of contact with the blank and means independent of the turret for moving said device into engagement with the blank during the movement of the blank into said position.

15. A heeling machine, having in combination, a carrier for a blank to be attached, a cement receptacle, means for maintaining a predetermined level of cement in said receptacle, a cement applying device, means for dipping the device in the cement and bringing it into engagement with the face of the blank, and means for varying the depth to which said device is dipped in the cement to vary the amount of cement taken up by the device.

16. In a machine of the class described, the combination with means arranged to carry a heel blank into attaching position, of a device for supplying cement to the blank controlled by the movement of said means and arranged to vary the extent of surface covered with cement, and mechanism for attaching the blank to a shoe.

17. A machine of the class described, having in combination, means for sustaining a heel-blank, a cementing device having a cement carrying surface formed for engagement with the blank, means for applying cement to said device arranged for adjustment to vary the extent of surface upon said device covered with cement by said applying means, and means for bringing said device into contact with a blank constructed for ad-

justment to vary the extent of surface upon the blank covered with cement by said device.

18. In a machine of the class described, means for sustaining a heel-blank, a rotary cement applying roll having a cement applying surface of absorbent material and mechanism for bringing said roll into engagement with the blank between its front and rear edges and for thereafter moving relatively said roll and blank to cause the roll to have rolling contact with the blank longitudinal of said blank.

19. A heeling machine, having in combination, means for attaching a heel to the sole of a shoe, mechanism for applying cement to the heel-seat face of one of said parts prior to the attaching operation arranged to leave free from cement the portions of said face adjacent to the breast of the heel, and means for varying the extent of surface upon said face left uncovered by cement.

20. A heeling machine, having in combination, a carrier for sustaining a blank in position for attachment to a shoe, a cement receptacle, a cement applying device, means for dipping the device in the cement and bringing it into engagement with the face of the blank prior to the attaching operation, said device being moved during such engagement to present a freshly dipped surface in position to engage the subsequent blank, and means for attaching the cement coated blank to a shoe.

21. A heeling machine having, in combination, heel nailing mechanism, a heel carrier movable to convey an inverted heel from cement receiving position breast foremost into alinement with said mechanism, a cement cup, a cement applying device movable from said cup to engage a heel on said carrier, the position of the heel in its path at the beginning of the cement applying operation being so determined relatively to the path of the movable cement applying device that the latter can be moved into engagement with the heel only in the rear of the breast edge of the heel, said cement applying device and heel being adapted for relative movement longitudinally of the blank whereby the rear portion of the heel seat surface may be coated with cement.

22. In a heeling machine, the combination with a reciprocatory head, of a heel blank carrier movable from receiving position into attaching position beneath the head, a rotary cement applying roll mounted independently of the reciprocatory head and arranged normally out of contact with the blank and means for moving said roll into engagement with the blank at a predetermined point in the travel of the blank.

23. In a heeling machine, the combination with a heel blank carrier movable from receiving position into attaching position, of

a rotary cement applying roll arranged normally out of contact with the blank, means for moving said roll into engagement with the blank at a predetermined point in the travel of the blank, and means for varying the extent of surface covered with cement by said roll.

24. In a heeling machine, the combination with a sliding heel blank carrier constructed to move a blank breast foremost into attaching position, of a cement applying device arranged normally out of contact with the blank, and means for moving said device into engagement with the blank when the breast portion of the blank is located at one side of the path of movement of said device.

25. A heeling machine having, in combination, heel nailing mechanism, a heel carrier movable to convey a heel blank from cement receiving position into alinement with said nailing mechanism, a cement cup, a cement applying device coöperating therewith, means normally held under restraint tending to move said device yieldingly into engagement with a heel on said carrier for applying cement to the heel, a member movable to release said means, and automatically acting mechanism for returning said cement applying device to the cup.

26. A heeling machine having, in combination, heel nailing mechanism, a heel carrier mounted for movement into and out of alinement therewith to convey a heel blank from cement receiving position to attaching position, a cement applying device, means normally held under restraint tending to move said device yieldingly into engagement with a heel blank on said carrier to apply cement to the blank, said means acting, when released, to effect the movement of the cement applying device, a pivoted lever arranged to act on said cement applying device, and mechanism acting on said lever to retract said device.

27. A heeling machine having, in combination, a shoe support, a turret carrying drivers movable toward said support to drive attaching nails into a heel, a carrier plate movable horizontally to bring a heel into alinement with and between said support and drivers, a finger *q* attached to one side of said carrier plate and projecting forwardly therefrom, a vertical rock shaft *m* carrying a roller *p*, said roller being yieldingly maintained in the path of said finger whereby the rock shaft is turned during the forward movement of said carrier plate, and locking mechanism controlled by said vertical rock shaft.

28. A heeling machine having, in combination, a shoe support, a cross head mounted for reciprocation toward said support first to attach a heel and then to spank a top lift, a reciprocatory heel carrier, a cement applying device movable to engage a heel

on said carrier, actuating means for moving said device to cementing position and mechanism for preventing the operation of said actuating means, said mechanism being released when the carrier is moved to a definite position prior to the attaching operation.

29. A machine of the class described having, in combination, heel nailing mechanism, a carrier plate movable to convey a heel blank from cement receiving position into alinement with said nailing mechanism, a movable cement applying device, actuating means tending to move said device yieldingly into engagement with a heel blank on said carrier, and a locking member arranged to hold said device normally in a position remote from the heel blank and being movable to permit said actuating means to effect movement of the cementing device into applying position.

30. A machine of the class described having, in combination, a shoe support, a carrier plate guided for reciprocation in a substantially horizontal path above said shoe support and arranged to convey an inverted heel blank breast foremost from a position in the rear of said support into vertical alinement with a shoe on said support, a device for applying cement to the heel seat surface of a heel blank on said carrier while the carrier is positioned in its horizontal path, and means for effecting downward movement of the carrier after it has been moved horizontally out of cementing position to press the cement coated blank against the sole of a shoe on said support.

31. A machine of the class described having, in combination, a shoe support, a carrier plate guided for reciprocation in a substantially horizontal path above said support and being also arranged for reciprocation in a vertical path, means for applying cement to a heel blank held in inverted position on the carrier while the carrier is positioned in its horizontal path, and means for effecting downward movement of said carrier, after it has been moved horizontally out of cement receiving position, to place the cement coated blank in position on the shoe.

32. A machine of the class described having, in combination, a shoe support, a carrier plate movable in a horizontal path forwardly and rearwardly and also movable downwardly toward a shoe on said support, a cementing device located in the rear of said support, and means for raising said device into contact with the heel seat surface of a heel on the carrier when the carrier is in its upper position, said carrier being downwardly movable in its forward position to place the heel on the shoe.

33. A machine of the class described having, in combination, a shoe support, nail

drivers arranged to act in vertical alinement with said support, a carrier constructed and arranged to convey a heel blank breast foremost from cement receiving position in the rear of said support into line with and between said support and drivers, and a cement applying device disposed at the rear of said support, the carrier and cement applying device being so relatively disposed that cement is applied to a heel blank on said carrier over a portion of its heel seat surface extending from a point in the rear of the breast edge substantially to its rear curved edge.

34. A machine of the class described having, in combination, a shoe support, nail drivers arranged to act in vertical alinement with said support, a carrier constructed and arranged to convey a heel blank breast foremost by movement in the direction of its longitudinal axis from cement

receiving position in the rear of said support into line with and between said support and drivers, a movable cement applying device disposed in the rear of said support and beneath the path of the carrier, and means for lifting said applying device into contact with a blank on the carrier, the carrier and cement applying device being relatively movable to cause the application of cement to the heel blank over a portion of its heel seat surface extending from a point in the rear of its breast edge substantially to its rear curved edge.

In testimony whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.

EDWIN A. WEBSTER.

CHARLES R. TOWLE.

Witnesses:

LOUIS H. HAMMAN,

H. B. DAVIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."