Nov. 8, 1960 T. W. SNOW 2,958,878

TOE LASTING MACHINES

Filed Feb. 13, 1958 4 Sheets-Sheet 1

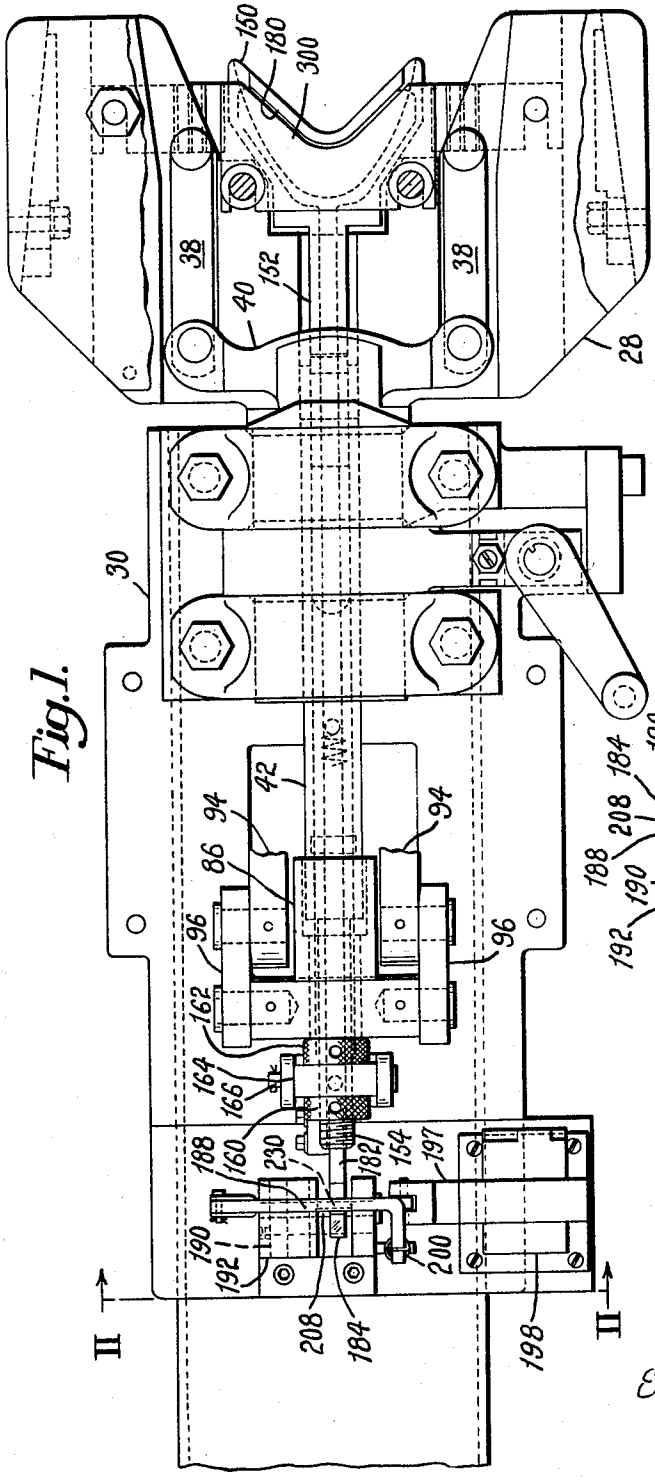


Fig. 1.

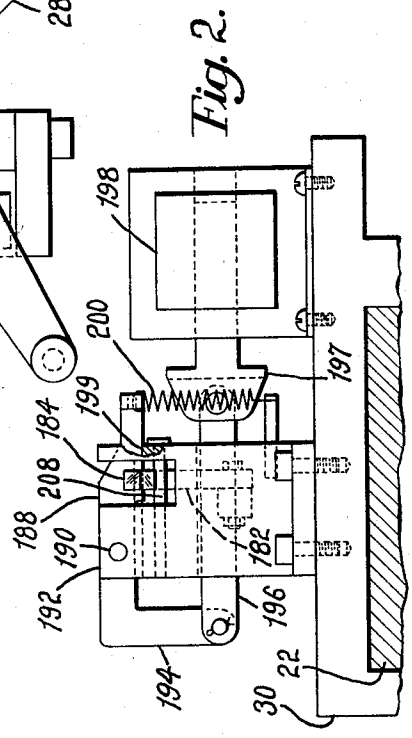


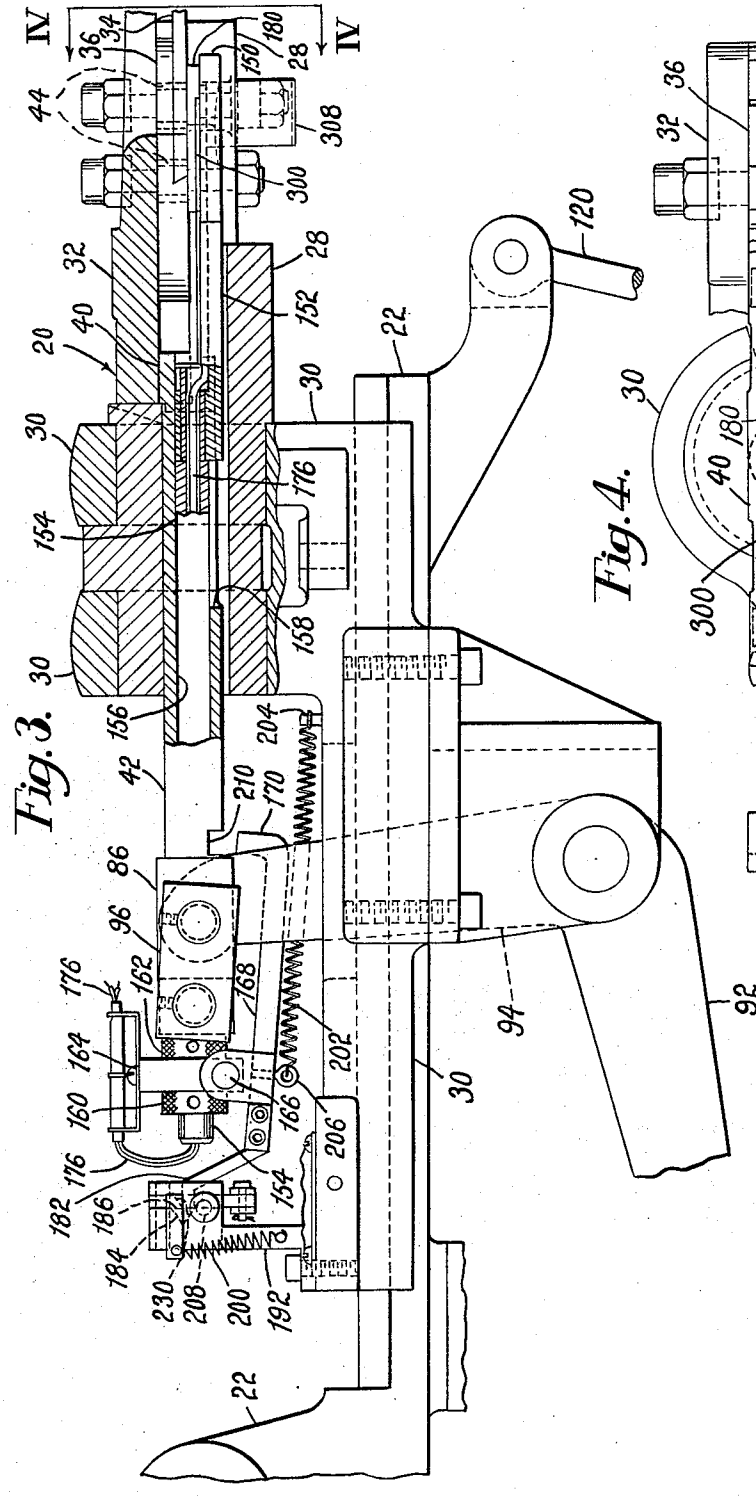
Fig. 2.

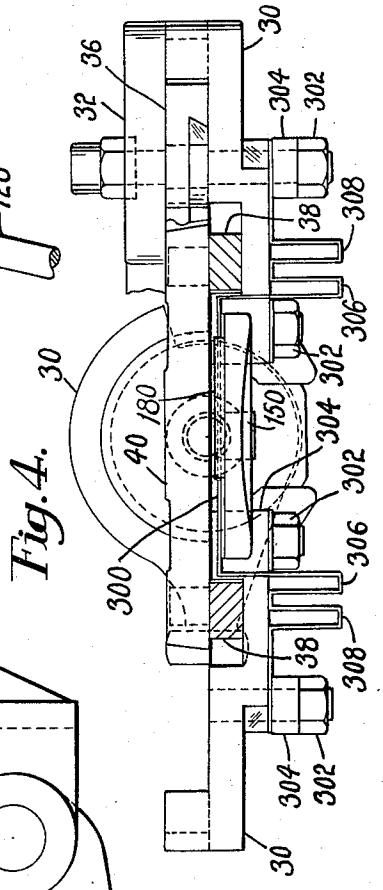
Inventor
Thomas W. Snow
By his Attorney
Everett D. Littlefield

Nov. 8, 1960 T. W. SNOW 2,958,878

TOE LASTING MACHINES

Filed Feb. 13, 1958 4 Sheets-Sheet 2





Nov. 8, 1960 T. W. SNOW 2,958,878

TOE LASTING MACHINES

Filed Feb. 13, 1958 4 Sheets-Sheet 3

Fig. 5.

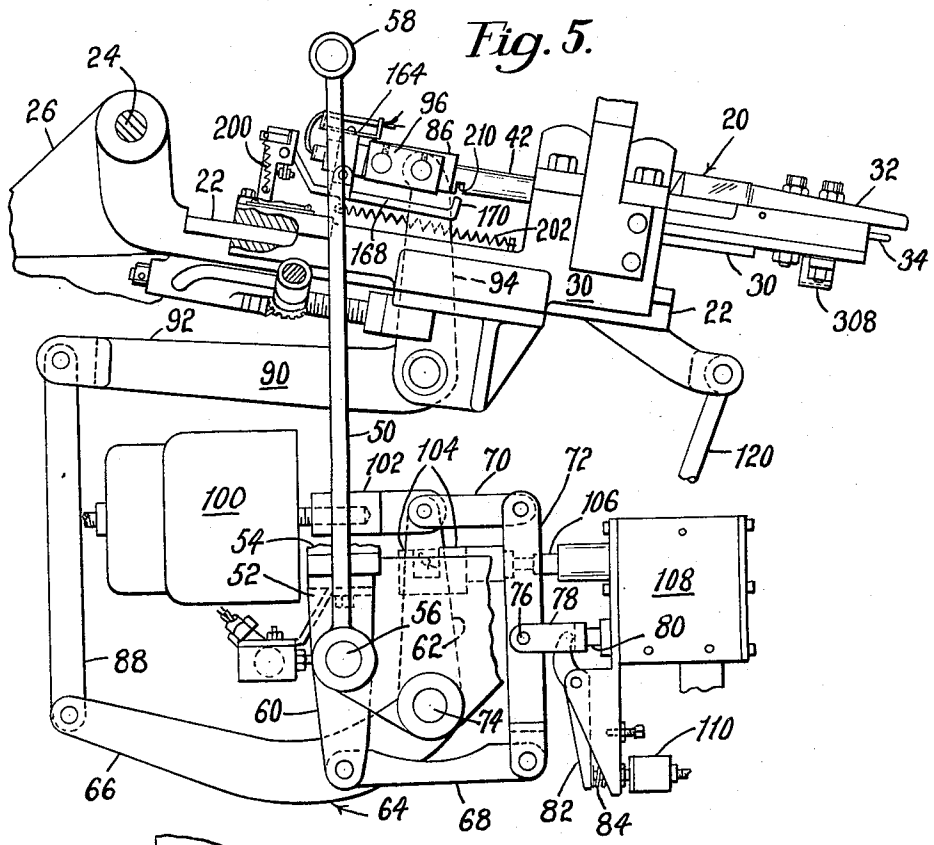
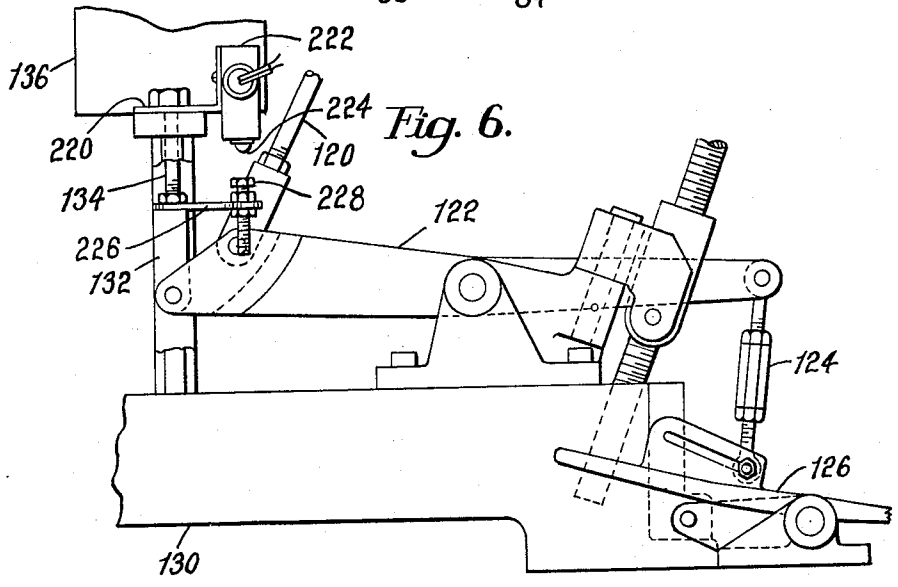


Fig. 6.



Nov. 8, 1960 T. W. SNOW 2,958,878

TOE LASTING MACHINES

Filed Feb. 13, 1958 4 Sheets-Sheet 4

Fig. 7

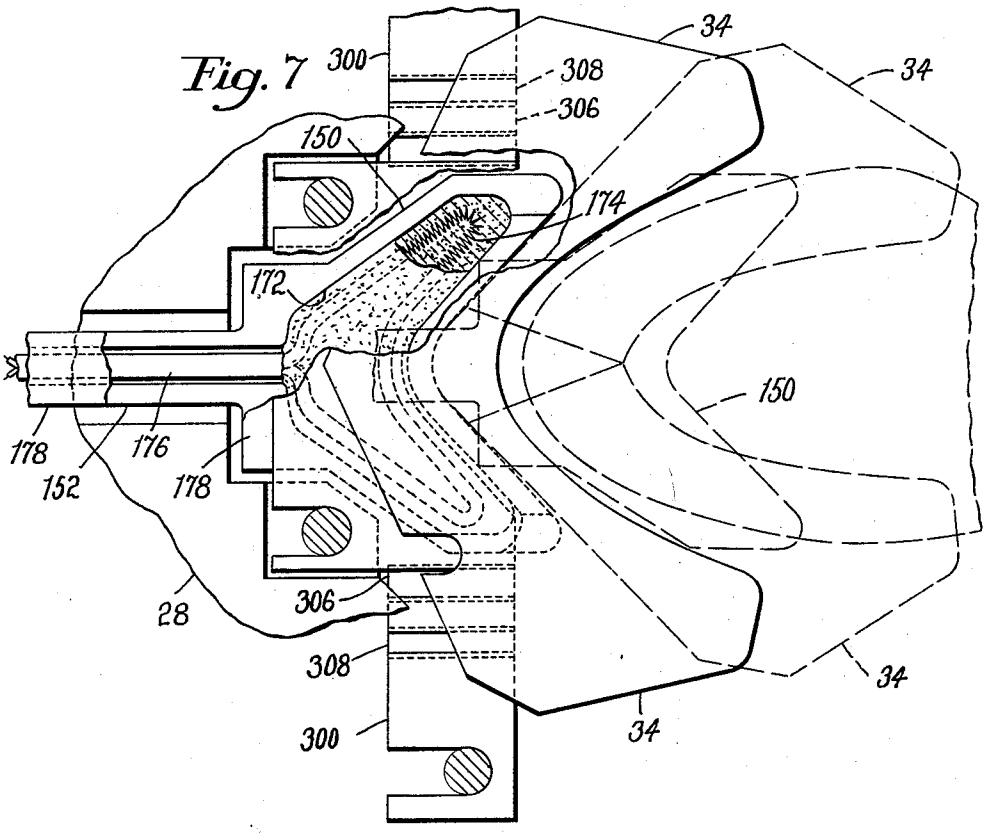
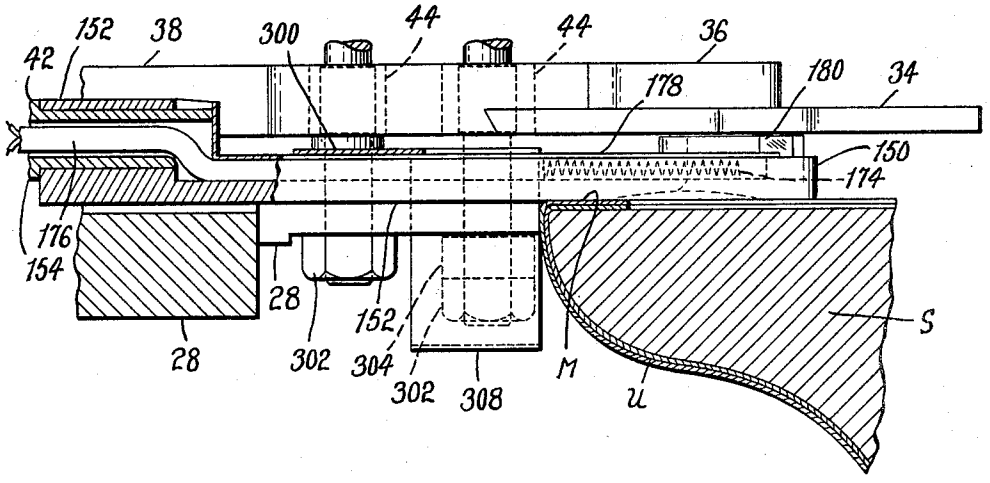


Fig. 8



United States Patent Office 2,958,878 Patented Nov. 8, 1960

2,958,878

TOE LASTING MACHINES

Thomas W. Snow, Melrose, Mass., assignor to United Shoe Machinery Corporation, Boston, Mass., a corporation of New Jersey

Filed Feb. 13, 1958, Ser. No. 715,138

15 Claims. (Cl. 12—12.4)

This invention relates to toe lasting machines and is herein illustrated as embodied in a toe lasting machine of the type shown in an application for United States Letters Patent Serial No. 731,686, filed April 29, 1958, in the names of Joseph O. Faneuf et al. It is to be understood, however, that in its broader aspects the invention is not limited to embodiment in a toe lasting machine of this particular type or to the exact mechanical construction herein shown.

In toe lasting machines of the above-mentioned type, the upper materials are wiped upwardly around and shaped to the toe end of a last and then are wiped inwardly over and pressed against the bottom face of an insole on the last by means of toe embracing wipers. Movement of the wipers heightwise relatively to the toe end of the shoe being lasted is effected in the aforementioned machine as a result of vertical movement of a wiper head by means of a foot treadle which is also used to urge the wipers forcibly against the overlasted margin of the upper materials, while advancing and closing movements of the wipers relatively to the wiper head are usually effected manually by means of a hand lever. In some instances, as in the machine illustrated in the mentioned application, power operated means are arranged to effect the advancing and closing movements of the wipers under the control of the hand lever, while power operated means also under the selective control of the operator are provided for forcing the wipers against the overlasted upper materials to provide what is called the "bedding down" action.

When toe lasting machines of the above-mentioned type are used for the lasting of shoes with cement, it has been found that the application of heat and pressure, to the overlasted margin of the upper materials is desirable inasmuch as it tends to smooth down and iron the lasting margin as well as to speed up the setting of the cement used to secure the upper in lasted position. In fact, the use of heat and pressure in this way may even be beneficial, although the upper materials are held in lasted position by metallic fastenings, such as tacks or staples, because of the smoothing and ironing action which is obtained. In view of the difficulty of handling heated wipers as well as the danger of marking or otherwise damaging the upper at the toe end of the shoe, several different types of auxiliary heated pressing members have been proposed for use in toe lasting machines for applying heat and pressure to the overlasted margin of the upper materials after the toe end of a shoe has been lasted and the lasting margin wiped inwardly over and pressed against the insole by means of cold lasting wipers. For example, it has been proposed to place a heated plate on the overlasted margin of the upper materials, after the lasting wipers have been elevated, at the conclusion of the lasting operation, and then to bring the wipers down on this plate to cause it to apply pressure to the upper materials; to provide separately operable heated pressing members arranged to be swung from a remote and inoperative position, inwardly over the toe end of a shoe after the wipers have been retracted at the end of the lasting operation and then to cause the heated pressing members to exert ironing pressure thereon by means of a foot treadle; and also to arrange a heated presser or auxiliary wiping member so that it can be forcibly inserted between the wipers of a toe lasting machine and the overlasted upper materials at the toe end of the shoe. While each of these prior arrangements has some merit, none has proved to be entirely satisfactory in actual practice.

It is, therefore, a principal object of the present invention to provide in a toe lasting machine of the type here under consideration a novel and improved heated pressing member for applying heat and pressure to the overlasted margin of the upper materials at the toe end of a shoe which is not only of relative simple and inexpensive mechanical construction but which is also easy to operate and especially reliable and effective in use. With this purpose in view, the herein illustrated machine, which has a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto from a retracted position, and wiper operating means including a hand lever for thus advancing and closing the wipers, and means for effecting relative heightwise movement between the wipers and the toe end of a shoe being lasted, is provided with an auxiliary pressing member carried by the wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe being lasted, together with means under the control of the operator for selectively connecting the pressing member to the wiper operating means for movement by the hand lever. More particularly, and in the herein illustrated arrangement, fluid pressure actuated means under the control of the hand lever are provided for operating the wipers and the auxiliary pressing member, which is heated in any suitable manner, is normally held in a retracted position against the action of means tending to move it in the direction of advance of the wipers, by means of a latch, and means are provided for connecting this heated pressing member to the wiper operating means when this member and the wiper operating means are in a predetermined relative position, together with means under the control of the operator, and preferably operable in response to elevation of the wiper head, for releasing the latch thus to cause the pressing member to be moved to said predetermined relative position and connected to the wiper operating means. Preferably, and as herein illustrated, novel means are interposed between the heated pressing member and the wipers, when they are in their retracted positions, for reflecting and absorbing heat radiated from the heated member thereby to prevent undue heating of the lasting wipers.

The above and other objects and features of the invention will appear in the following detailed description of the preferred embodiment thereof which is illustrated in the accompanying drawings and will be pointed out in the claims.

In the drawings,

Fig. 1 is a plan view of a portion of a toe lasting machine embodying the invention and with certain parts omitted to clarify the disclosure;

Fig. 2 is a view in section substantially on line II—II of Fig. 1 and looking in the direction of the arrows, this view being at a slightly enlarged scale;

Fig. 3 is a view in side elevation and with certain parts shown in section of that portion of the machine illustrated in Fig. 1;

Fig. 4 is a view in end elevation of that portion of the machine shown in Fig. 3 as viewed from the right-hand side of Fig. 3, see arrows IV and IV;

Fig. 5 is a somewhat schematic view in side elevation of the toe lasting machine and showing especially the

power operated mechanism for advancing and closing the wipers;

Fig. 6 is a view similar to that of Fig. 5, but showing another portion of the toe lasting machine including the mechanism provided for effecting vertical movement of the wiper head;

Fig. 7 is a plan view of operating elements associated with the wiper head with certain parts omitted and others broken away to clarify the disclosure; and

Fig. 8 is a view in side elevation of the operating elements shown in Fig. 7, with some parts in vertical section and others broken away, this view showing one of these elements in operative position and acting on the toe end of a shoe being lasted.

Referring to these drawings, and especially to Fig. 5, as has already been suggested, the novel features of this invention are shown as embodied in a toe lasting machine of the type disclosed in the above-identified application. Thus the herein illustrated machine has a wiper head, indicated generally by the reference character **20**, this head being adjustably supported on an arm **22** which, in turn, is pivotally mounted, by means of a shaft **24**, on the machine frame, an upper portion of which is shown and indicated by the reference character **26**. Referring to Fig. 3, the wiper head includes a main portion **28**, rotatably mounted on a carriage **30** which is adjustable along guideways formed on the arm **22**, and a cover **32**. Associated with the wiper head are two lasting wipers **34**, **34** each mounted on a wiper carrier, one of which is shown in Figs. 4 and 8 and identified by the reference character **36**. Connected to these wiper carriers by means of links **38**, **38** is a crosshead **40** having formed integrally therewith a wiper operating rod **42**. The wiper carriers are provided with cam grooves, not shown, which cooperate with rollers, see **44**, **44** in Fig. 3, associated with the wiper head and arranged to cause the wipers to be advanced and closed in response to movement of the wiper operating rod to the right from the position in which it is shown in Fig. 3 with the wipers **34** retracted and opened.

Such movements of the rod **42** are effected, in the herein illustrated machine, as in the machine of the above-mentioned application, by means of a hand lever **50** which is pivotally mounted, at its lower end, on a bracket **52** associated with a part of the machine frame **54**, by means of a shaft **56** to which it is secured, this hand lever having at its upper end a handle **58**, Fig. 5. Also secured to the shaft **56**, on the opposite side of the bracket **52**, is an arm **60** which is connected to one arm **62** of a bell-crank lever **64** having a second arm **66**, by means of a pair of links **68**, **70** and a differential lever **72**. The bell-crank lever **64** is pivotally mounted on the frame part **54** by means of a rockshaft **74**. The differential lever **72** is pivotally mounted on a pin **76** carried by the bifurcated end **78** of the stem of a bleed valve **80**. As will be understood by reference to the above-mentioned application, this bleed valve is normally held against its seat, not shown, by means of a locking lever **82**, spring **84** and a piston in a cylinder **110**. The arm **66** of the bell-crank lever **64** is operatively connected to a block **86**, secured to the left-hand end of the wiper operating rod **42**, by means of a link **88**, bell-crank lever **90**, having arms **92** and **94**, Fig. 5, and links **96**, **96**, Fig. 1. With the valve **80** and pivot pin **76** thus immobilized, the wipers **34**, **34** may be manually advanced and closed, or retracted and opened, by means of the hand lever **50** with its operating handle **58** in a manner which will be readily understood.

In common with the machine of the above-mentioned application, the herein illustrated machine is also provided with power operated means, under the control of the hand lever **50**, for advancing and closing the wipers. This power operated means includes a fluid pressure actuator **100** having an operating rod **102** which is connected to the arm **62** of the bell-crank lever **64**. Also connected to this arm, by means of a yoke-like block **104**, is the rod **106** of a fluid dashpot piston, not shown, contained within a casing **108**. On the end of the handle **58** opposite to that which is shown in Fig. 5 there is a control member in the form of a push button (not shown) adapted to be moved axially of the handle against a yieldable resistance and, as will be understood by reference to the mentioned application, an initial movement of this push button renders the fluid pressure actuator **100** effective to apply, through its rod **102**, a force on the arm **62** of the bell-crank lever **64** tending to swing the arm in a clockwise direction and thus, through the connections which have already been mentioned, to move the wiper operating rod **42** to the right thereby advancing and closing the wipers.

Such initial movement of the push button also has the effect of closing off a normally open by-pass, not shown, which is associated with the dashpot piston to afford communication between portions of the dashpot cylinder on the opposite sides of the piston, thus preventing movement of this piston and the other parts which are connected thereto, as explained above, and of exhausting fluid under pressure from the cylinder **110** thereby releasing the locking lever and the bleed valve **80** to the action of the spring **84**. Now, as the hand lever **50** is swung to the right, the bleed valve **80**, which controls flow from one side of the dashpot piston to the other, will be opened to permit movement of the wiper rod through the action of the fluid actuator **100** so that the wipers will be advanced and closed under power and to an extent determined by the extent of movement of the hand lever. In other words, and as is fully explained in the mentioned application, a servo or feedback action is obtained. To retract the wipers, the operator releases the push button, thereby discontinuing the power operation of the wipers and then moves the hand lever to the left. Thus, the operator can advance and close the wipers manually during the upwipe operation and, when greater effort is needed for overwiping, he can quickly bring the power operated mechanism into action.

Connected to the outer end of the arm **22** is the upper end of a rod **120** the lower end of which is connected to one arm of a lever **122**, Figs. 5 and 6. The other end of this lever is connected by means of a link **124** to a foot treadle **126** which is pivotally supported on a lower portion **130** of the machine frame. By means of this foot treadle, the arm **22** may be swung about its pivotal mounting shaft **24** thereby to effect relative heightwise movement between the wipers **34**, **34** and the toe end of a shoe being lasted in the machine. Also connected to the lever **122**, by means of a link **132**, is the operating rod **134** of a fluid pressure actuator **136**. As is explained in detail in the mentioned application, this actuator is adapted to be rendered operative, in response to an additional movement of the push button on the handle **58**, so as to exert a force on the lever **122**, rod **120** and arm **22** tending to swing the arm in a clockwise direction thereby to press the wipers firmly against the bottom of the toe end of the shoe being lasted.

For the purposes of this invention, the herein illustrated machine is provided with a heated pressing member **150** comprising a metallic block of the shape shown in Figs. 1 and 7 and formed integrally with a neck portion **152** which is secured to the right-hand end of a hollow operating rod **154**, Figs. 3 and 8. This hollow rod is slidable within a bore **156** formed in the wiper operating rod **42**, this bore being cut away to provide a clearance slot **158**, Fig. 3, for a purpose which will presently appear. Secured to the left-hand end of the rod **154**, between two threaded adjusting collars **160**, **162**, is a block **164** to which there is pivotally mounted, by means of a trunnion pin **166**, a latch lever **168** having an upturned right-hand end **170**, Fig. 3. The member **150** is hollowed out at **172** to receive an electrical

heating coil 174 (Fig. 7) which is connected to a suitable source of electrical energy, not shown, through a cable 176, Figs. 3, 7 and 8. A thin metal plate 178 serves as a cover for the open-topped neck portion 152 and for the block 150. Extending upwardly from the top of the member 150, adjacent to its forward edge, is a narrow ridge of metal 180, Fig. 8.

When the wipers 34, 34 are retracted, the block 86 on the wiper operating rod 42 engages the collar 162 and moves the heated member 150 to the retracted position in which it is shown in Fig. 3. At its left-hand end the latch lever 168 has an upwardly extending part 182 which is shaped to provide a beveled end 184 and a shoulder 186, Fig. 3, adapted to engage a locking lever 188, Fig. 2. This locking lever is pivotally mounted, by means of a pin 190 on a bracket 192 which is supported on the carriage 30. This lever has a downwardly extending end 194 which is connected, by means of a link 196, to the armature 197 of a solenoid 198. When this solenoid is energized, the locking lever 188 will be swung in a counterclockwise direction, against the resistance of a coil spring 200, which normally holds the lever 188 in the position shown in Fig. 1 and as determined by a stop surface 199 on the bracket 192, thereby releasing the end 182 of the lever 168. A coil spring 202, stretched between a pin 204 on the carriage 30 and an eye 206 secured to the lever 168 tends to swing that lever in a counterclockwise direction and also to move the block 164 and rod 154 to the right, Fig. 3. Such swinging movement of the lever 168 is, however, prevented when the parts are in the positions shown in Fig. 3 by means of a bar 208, carried by the bracket 192 and engaging the lower side of the beveled end 184 on the part 182 of this lever. Movement of the rod 154 by the spring 202 is, of course, prevented by engagement of the collar 162 with the block 86.

The solenoid 198 is normally deenergized so that the locking lever 188 remains in the position shown in (Fig. 2) when the rod 42 is moved to the right either manually or by the power operated means, to advance and close the wipers 34, 34, the slot 158 in the lower part of the operating rod 42 now receiving the neck portion 152 associated with the heated pressing member 150 which remains in the retracted position in which it is shown in Fig. 3. When the solenoid 198 is energized, the locking lever 188, Fig. 2, is swung in a counterclockwise direction, thus releasing the lever 168 and the block 164 to the action of the spring 202. First, this spring swings the lever 168 in a counterclockwise direction through a small angle and until its upturned end 170 engages the flat lower surface on the block 86 and then the block 164, rod 154 and heated pressing member 150 are moved to the right until the collar 162 engages the end of the block 86 thereby establishing a predetermined relation between the heated pressing plate and the wiper operating mechanism in which the upturned end 170 of the latching lever passes beyond the right-hand end of the block 86. The lever 168 is now swung further in a counterclockwise direction to cause its upturned end 170 to enter a notch 210 in the wiper operating rod, thus connecting the heated pressing plate thereto for movement with this rod as the wipers are advanced and closed, either manually or by power, or retracted manually, as explained above.

For thus energizing the solenoid 198 any convenient arrangement may be provided. However, in the herein illustrated machine, this is accomplished as a result of the elevation of the wiper head 20 by upward swinging of the arm 22 by the treadle 126. Thus there is mounted on a bracket 220, associated with the fluid pressure actuator 136, a microswitch 222 having an operating plunger 224 and connected in the electrical line leading from a source of electrical energy, not shown, to the solenoid 198. Mounted on the operating rod 134 of the fluid pressure actuator 136 is a bracket 226 carrying an adjustable abutment screw 228. As will be apparent, when the treadle 126 is actuated to elevate the wiper head 20, the switch 222 will be closed and the solenoid 198 energized. When the head is lowered, after the heated pressing plate has been projected to operative position and connected to the wiper operating rod 42, in the manner just explained, the switch 222 will be opened and the solenoid 198 deenergized, thus permitting the locking lever 188 to be returned to the operation shown in Fig. 2. Accordingly, when the wipers 34, 34 are fully retracted and the heated pressing member 150, operating rod 154 and block 164 have returned to the positions shown in Fig. 3, the lower side of the beveled end 184 of the upturned portion 182 of the latching lever 168 will engage the rod 208 and be cammed upwardly while the upper side of this beveled end will cam the locking lever upwardly, by engagement with a camming surface 230 thereon, Fig. 3, thereby permitting the parts to reassume the locked positions shown in Fig. 3. As will be apparent, even though the solenoid 198 may become energized as a result of elevation of the wiper head while the wipers are fully retracted, no movement of the latching lever 168 or of the heated pressing member 150 could occur because of the engagement of the beveled end 184 of the lever 168 with the rod 208 and the engagement of the collar 162 with the block 86.

In order to render the heated pressing member 150 practically effective is is necessary that it be heated to a relatively high temperature, e.g., 400° F. It is, however, extremely undesirable that the lasting wipers 34, 34 become anywhere near as warm. To prevent this from happening, there is interposed between the heated pressing member and the wipers when they are in their retracted positions, Fig. 3, means for absorbing heat and for reflecting heat away from the wipers. This means comprises a housing member 300 shaped as shown in Figs. 1, 4 and 8, and secured to the wiper carrier body portion 28 by means of bolts 302 and spacer blocks 304. On its lower side, this housing member, which is preferably formed of aluminum, is provided with a bright surface for deflecting heat from the heated presser member 150 downwardly and away from the wipers. Also, as can be seen in Fig. 4, the member 300 is formed with two sets of reverse folds 306, 308, 306, 308 through which air may circulate and thus dissipate to the atmosphere heat absorbed by the member 300.

Referring to Fig. 8, the heated pressing member 150 is shown in its projected and operative position beneath the advanced and closed wipers 34, 34. It is also shown in operative engagement with the overlasted margin M of the upper materials U of a shoe S being lasted in the machine. It will be observed that the narrow ridge of metal 180 which adjoins the leading edge of the heated pressing member, is spaced quite close to the lower face of the wipers. Accordingly, when the heated pressing member is urged forcibly down against the overlasted margin of the upper materials of the shoe, after yielding in an upward direction slightly, as permitted by a slight looseness of the parts and the flexibility of the neck portion 152, it will be supported firmly by the engagement of the ridge 180 with the wipers. However, this metal-to-metal contact is of such a slight extent in area that little, if any, heat is thus transmitted from the heated pressing member to the wipers.

The operation of the herein illustrated machine and of the novel and improved heated pressing member should be apparent from the above description. It will, however, be noted that the heated pressing member, while normally held in an out-of-the-way location, is immediately available for use and can quickly be brought into operative position and connected to the wiper operating rod in response to an elevation of the wipers after the overwiping operation has been completed. When thus connected to the wiper operating rod this heated pressing member may not only be used for applying di-

rect pressure to the overlasted margin of the upper materials but it also may be moved in directions extending lengthwise of the shoe, either manually or by the power operated means, to provide a definite ironing action which tends to augment the overwiping action of the wipers. Because of the retention of the heated pressing member in a retracted position and the provision of the heat reflecting and absorbing member, interposed between the heated pressing member and the retracted wipers, this heated pressing member may be maintained at a much higher temperature than otherwise would be possible and its effectiveness is correspondingly increased. For example, the member **150** can be heated to a temperature of over 400° F. while the temperature of the wipers **34, 34** does not rise much above 120° F. Also, with the arrangement herein illustrated, accidental projection of the heated pressing member into direct engagement with the upper materials at the toe end of the shoe being lasted, which might result in burning or in otherwise marring the upper in a location which would be visible in the finished shoe, is entirely avoided.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, wiper operating means including a hand lever for thus advancing and closing said wipers, and means for effecting relative lengthwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe, and means for selectively connecting said auxiliary pressing member to the wiper operating means for movement by said hand lever.

2. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, power actuated wiper operating means under the control of a hand lever for thus advancing and closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe, and means for selectively connecting said auxiliary pressing member to the wiper operating means for movement by the power actuated wiper operating means under the control of said hand lever.

3. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, fluid pressure actuated wiper operating means under the control of a hand lever for thus advancing and closing said wipers, means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe, and means for selectively connecting said auxiliary pressing member to the wiper operating means for movement by the fluid pressure actuated wiper operated means under the control of said hand lever.

4. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, wiper operating means including a hand lever for thus advancing and closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe, means tending to move said pressing member in the direction of advance of the wipers, latch means for holding said pressing member against such movement, means adapted to connect the pressing member to the wiper operating means when said pressing member and said operating means are in a predetermined relative position, and means under the control of the operator for releasing said latch to cause the pressing member to be moved into said predetermined position relatively to the wiper operating means by said moving means and to be connected thereto by said connecting means for movement in directions extending lengthwise of the shoe by said hand lever.

5. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, power actuated wiper operating means under the control of a hand lever for thus advancing and closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe, means tending to move said pressing member in the direction of advance of the wipers, latch means for holding said pressing member against such movement, means adapted to connect the pressing member to the wiper operating means when said pressing member and said operating means are in a predetermined relative position, and means under the control of the operator for releasing said latch to cause the pressing member to be moved into said predetermined position relatively to the wiper operating means by said moving means and to be connected thereto by said connecting means for movement in directions extending lengthwise of the shoe by said power actuated wiper operating means under the control of said hand lever.

6. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, fluid pressure actuated wiper operating means under the control of a hand lever for thus advancing and closing said wipers, means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe, means tending to move said pressing member in the direction of advance of the wipers, latch means for holding said pressing member against such movement, means adapted to connect the pressing member to the wiper operating means when said pressing member and said operating means are in a predetermined relative position, and means under the control of the operator for releasing said latch to cause the pressing member to be moved into said predetermined position relatively to the wiper operating means by said moving means and to be connected thereto by said connecting means for movement in directions extending lengthwise of the shoe by said fluid pressure actuated wiper operating means under the control of said hand lever.

7. In a machine for lasting the toe ends of shoes having a wiping head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, wiper operating means including a hand lever for thus advancing and

closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe, means tending to move said pressing member in the direction of advance of the wipers, latch means for holding said pressing member against such movement, means adapted to connect the pressing member to the wiper operating means when said pressing member and said operating means are in a predetermined relative position, and means under the control of the operator and operable in response to elevation of the wiper head for releasing said latch to cause the pressing member to be moved into said predetermined position relative to the wiper operating means by said moving means and to be connected thereto by said connecting means for movement in directions extending lengthwise of the shoe by said hand lever.

8. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, power actuated wiper operating means under the control of a hand lever for thus advancing and closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe, means tending to move said pressing member in the direction of advance of the wipers, latch means for holding said pressing member against such movement, means adapted to connect the pressing member to the wiper operating means when said pressing member and said operating means are in a predetermined relative position, and means under the control of the operator and operable in response to elevation of the wiper head for releasing said latch to cause the pressing member to be moved into said predetermined position relative to the wiper operating means by said moving means and to be connected thereto by said connecting means for movement in directions extending lengthwise of the shoe by said power actuated wiper operating means under the control of said hand lever.

9. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, fluid pressure actuated wiper operating means under the control of a hand lever for thus advancing and closing said wipers, means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe, means tending to move said pressing member in the direction of advance of the wipers, latch means for holding said pressing member against such movement, means adapted to connect the pressing member to the wiper operating means when said pressing member and said operating means are in a predetermined relative position, and means under the control of the operator and operable in response to elevation of the wiper head for releasing said latch to cause the pressing member to be moved into said predetermined position relative to the wiper operating means by said moving means and to be connected thereto by said connecting means for movement in directions extending lengthwise of the shoe by said fluid pressure actuated wiper operating means under the control of said hand lever.

10. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, wiper operating means including a hand lever for thus advancing and closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe from a retracted position beneath the wipers when the wipers are in their retracted positions to an operative position beneath the wipers when they are advanced, means for heating said auxiliary pressing member, and means interposed between said heated member and the wipers when in their retracted positions for absorbing heat radiated from said pressing member.

11. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, wiper operating means including a hand lever for thus advancing and closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe from a retracted position beneath the wipers when the wipers are in their retracted positions to an operative position beneath the wipers when they are advanced, means for heating said auxiliary pressing member, and a housing member interposed between said heated member and the wipers when in their retracted positions for absorbing heat radiated from said pressing member.

12. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, wiper operating means including a hand lever for thus advancing and closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe from a retracted position beneath the wipers when the wipers are in their retracted positions to an operative position beneath the wipers when they are advanced, means for heating said auxiliary pressing member, and means having a reflecting surface for deflecting heat radiated by said pressing member away from the wipers interposed between said heated member and the wipers when in their retracted positions.

13. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, wiper operating means including a hand lever for thus advancing and closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe from a retracted position beneath the wipers when the wipers are in their retracted positions to an operative position beneath the wipers when they are advanced, means for heating said auxiliary pressing member, and a metallic housing member having a reflecting surface for deflecting heat radiated from the pressing member away from the wipers interposed between said heated member and the wipers when in their retracted positions.

14. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto

for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, wiper operating means including a hand lever for thus advancing and closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe from a retracted position beneath the wipers when the wipers are in their retracted positions to an operative position beneath the wipers when they are advanced, means for heating said auxiliary pressing member, and a housing member interposed between said heated member and the wipers when in their retracted positions for absorbing heat radiated from said pressing member, said housing being provided with means for radiating heat absorbed from the heated member to the surrounding atmosphere.

15. In a machine for lasting the toe ends of shoes having a wiper head, toe wipers mounted on the head for advancing and closing movements relatively thereto for wiping the lasting margin of the upper materials inwardly over the bottom of the toe end of a shoe, wiper

operating means including a hand lever for thus advancing and closing said wipers, and means for effecting relative heightwise movement between the wipers and the toe end of the shoe, an auxiliary pressing member carried by said wiper head and mounted for movement relatively thereto in a direction extending lengthwise of the shoe from a retracted position beneath the wipers when the wipers are in their retracted positions to an operative position beneath the wipers when they are advanced, means for heating said auxiliary pressing member, and a metallic housing member interposed between said heated member and the wipers when in their retracted positions for absorbing heat radiated from said pressing member, said housing being provided with means for radiating heat absorbed from the heated member to the surrounding atmosphere.

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UNITED STATES PATENT OFFICE

CERTIFICATION OF CORRECTION

Patent No. 2,958,878 November 8, 1960

Thomas W. Snow

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 6, line 9, for "operation" read -- position --; line 28, for "is", first occurance, read -- it --; column 7, line 32, for "lengthwise" read -- heightwise --; column 8, line 71, for "wiping" read -- wiper --.

Signed and sealed this 2nd day of May 1961.

(SEAL)
Attest:

ERNEST W. SWIDER
Attesting Officer

DAVID L. LADD
Commissioner of Patents