No. 896,986. PATENTED AUG. 25, 1908

P. R. GLASS.

CEMENT APPLYING MECHANISM.

APPLICATION FILED FEB. 16, 1907.

2 SHEETS—SHEET 1.

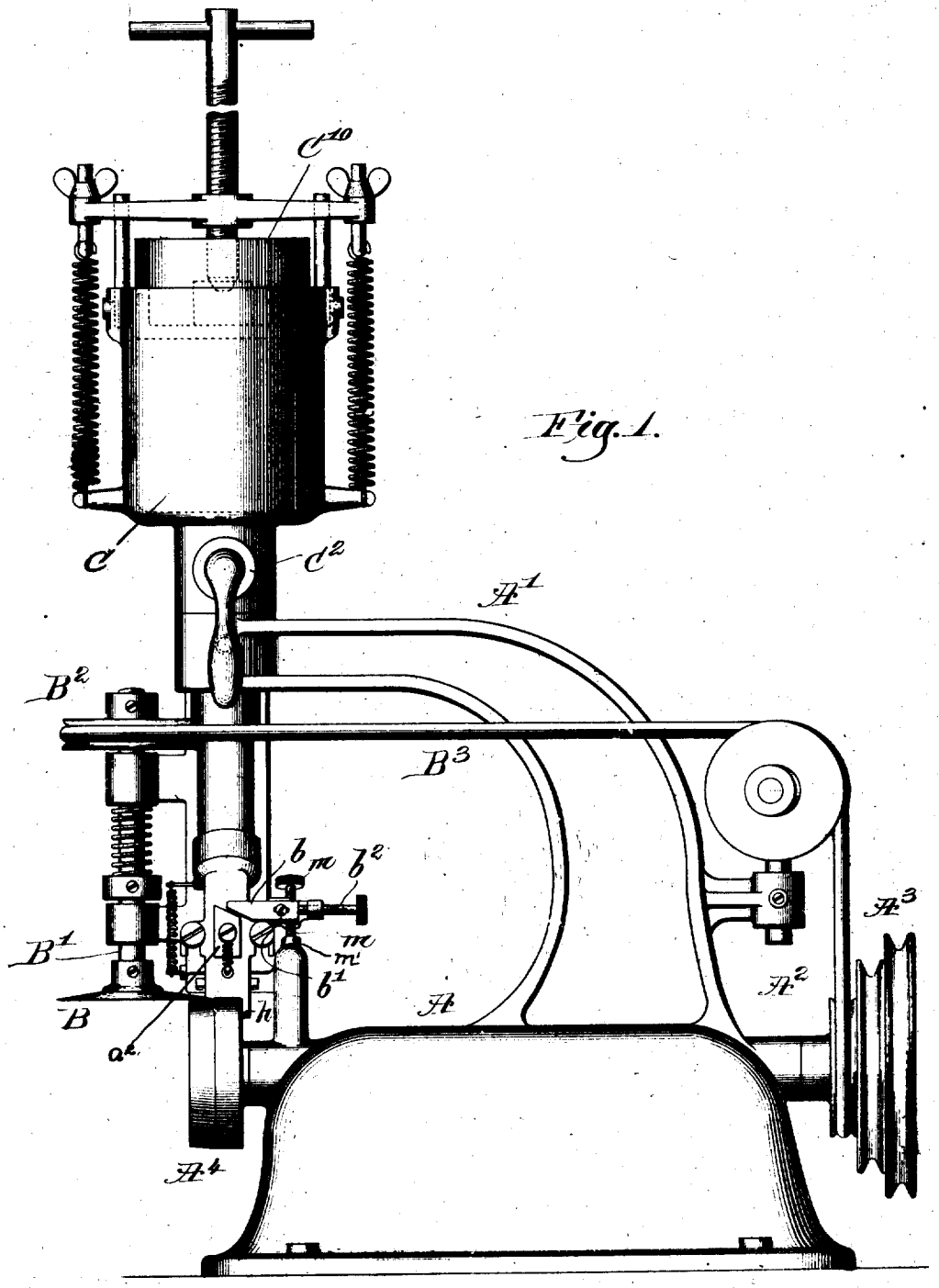


Fig. 1.

Witnesses.
Thomas J. Drummond
Joseph M. Ward.

Inventor
Perley R. Glass.
By Lemley & Gregory Kelly & Co.

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2 SHEETS—SHEET 2.

Fig. 2.

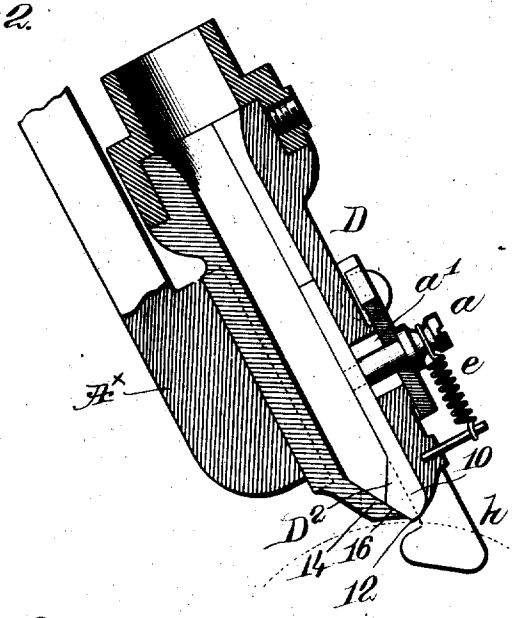


Fig. 5.

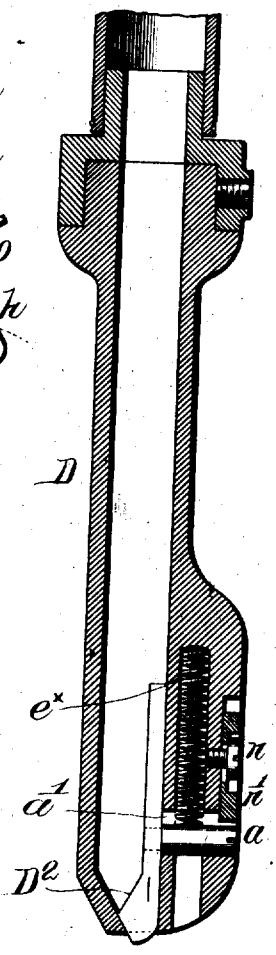


Fig. 3.

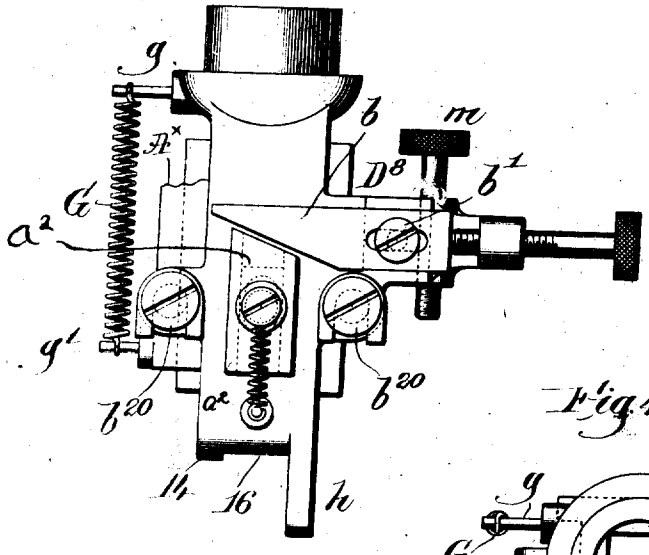
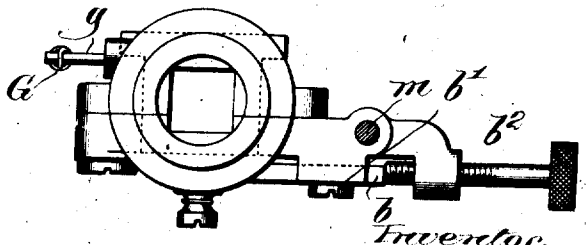


Fig. 4.



Witnesses:
Thomas J. Drummond.
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UNITED STATES PATENT OFFICE.

PERLEY R. GLASS, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO P. R. GLASS COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

CEMENT-APPLYING MECHANISM.

No. 896,986. Specification of Letters Patent. Patented Aug. 25, 1908.

Application filed February 16, 1907. Serial No. 357,626.

To all whom it may concern:

Be it known that I, PERLEY R. GLASS, a citizen of the United States, residing in Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Cement-Applying Mechanism, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

Prior to my invention, a nozzle adapted to be supplied with cement has been provided with a valve, the nose of which normally projects therefrom and prevents the delivery of cement from the nozzle excepting when the stock resting on a feed wheel or other usual stock support and being moved under the nozzle contacts with the toe of the valve, variations in thickness of the stock varying the opening in said valve and letting out more cement when the stock increases in thickness.

I find in practice that different kinds of stock require more or less cement, and this whether the stock is thick or thin, and consequently I have combined with the valve referred to as coacting with said nozzle means whereby I may set the valve so that it may be opened by contact with the stock far enough to permit only a definite quantity of cement to flow onto the stock, any increase in thickness of stock not increasing the flow of cement, or in other words I have combined with the valve referred to means whereby the valve may be opened for any desired extent by contact with the stock, and any increase of thickness in the stock will raise both the nozzle and the valve without further opening the valve.

Figure 1 in side elevation shows part of a machine with which I have embodied my invention in one of the best forms now known to me, Fig. 2 is an enlarged longitudinal section broken through the nozzle showing the valve in elevation; Fig. 3 is a view looking at the nozzle and its connected valve adjusting devices; Fig. 4 is a top end view of the parts shown in Fig. 3, and Fig. 5 is a modification showing my improvement applied to a hand operated cementing device.

Referring to the drawings, A represents the base, A' an overhanging arm, A^2 a shaft provided at one end with a driving pulley A^3 and at its opposite end with a stock-feeding supporting wheel A^4, B represents a stock feeding disk for acting on the upper side of the stock resting on the feeding wheel, B' its carrying shaft, B^2 a pulley on said shaft driven from a belt B^3 from the wheel A^3. The parts so far described are and may be as in common use. The overhanging arm sustains a cement receptacle C having a plunger C^{10} resting on the cement therein, the lower part of said receptacle having a cock C^2 that when turned into its open position admits cement into a nozzle D having a valve D^2 that is normally closed by a spring e when the toe of the valve is not in contact with the stock to which cement is to be applied. This receptacle, nozzle and valve, and closing spring with the nozzle however maintained stationary on the framework, is not herein claimed broadly, but I am, as I believe, the first to move the nozzle vertically after the valve has been opened to any predetermined degree by means to be hereinafter described.

I have shown in Figs. 1 to 4 my novel cement applying mechanism as applied to a machine of usual construction, but it will be understood that my improved mechanism may be used to apply cement to leather or to other substances sustained in any usual manner and in any machines commonly used to feed leather or other material. When the stock, sustained by a feeding wheel, is fed regularly under the nozzle, and the stock opens the valve, cement will be delivered uniformly on the stock.

In my invention I have provided means to sustain the nozzle and stock support in yielding relation so that in case the stock varies in thickness one or the other will yield, but without opening the valve beyond the point predetermined by the amount of cement to be delivered, and in illustrating my invention, I have herein chosen to so support the nozzle that it may yield with relation to the stock support, but a converse relation would come within the broad scope of my invention. Consequently I have shown the nozzle so that it may be moved toward the stock support, the nozzle being represented as embraced loosely by a fixed part of the head of the machine. This nozzle may therefore rise and fall under the influence of a spring G, the upper end of which is attached to a stud g extended from the upper end of the nozzle, the lower end of said spring being connected with a stationary stud g' extended from a part of the frame. The stud a con-

nected with the valve D^2 and extended outwardly through the slot a' in said nozzle has fitted to it a striker a^2, that is moved in unison with said valve, said striker when the valve is moved in the direction of the arrow thereon by contact with the stock to thus open a space for the exit of cement, contacting with a regulating device b, shown as slotted to receive a set screw b', the outer end of said device being acted upon by an adjusting device b^2, the movement of which may slide the regulating device so that the space left between the tapered upper end of said striker and the tapered under side of said regulating device may be made more or less to thereby predetermine in advance just the space it is desired to leave between the beveled edge 10 of the valve and the seat 14 of the nozzle. The nozzle also supports at its lower end a work gage h shown as extended below the right hand side thereof against which may bear the edge of a piece of stock being fed between the feeding wheel and the lower end 16 of the nozzle that performs the function of a presser foot to contact with the upper side of the work on the stock support.

Let it be supposed that the regulating device has been adjusted to determine the width of the cement discharging space between the valve and the seat 14. Then the stock is laid on the feeding wheel and as the stock is fed, the upper side thereof contacts with the toe 12 of the valve and raises the same against the spring e until the upper end of the striker meets the regulating device. Now if the stock should increase in thickness, the nozzle and valve rise together but without further opening the valve.

I have provided the extension D^8 from the nozzle with an adjustable stop screw m that contacts with a projection m' rising from the framework, the stop m being so adjusted as to prevent the toe of the valve contacting with the feeding device.

As so far described, the machine in use will lay a line of cement on the stock.

I believe that I am the first to provide a nozzle with a valve provided with a projection with an adjustable regulator, change of position of which provides for varying the opening or space left by the movement of the valve to thereby deliver a predetermined quantity of cement. Accordingly I have shown in Fig. 5 a nozzle D to be grasped by hand, the valve D^2 having its connected stud a extended outwardly through a slot a'. This stud in Fig. 5 is acted upon by a spring $e^\times$ that serves normally to seat the stud in the lower end of said slot and keep the valve so seated to prevent the escape of cement. To the outer side of the nozzle, I have attached by a set screw n, a regulator shown as a slotted plate, the shank of the screw being extended through said slot to maintain the same in any position in which it may be adjusted according to the width of the space it is desired to leave when the toe of the valve acting against the stock causes said valve to be moved and enter said nozzle.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A cement applying mechanism comprising a cement receptacle, a stock support, a nozzle leading from said receptacle and provided at its mouth with a valve, said valve opening automatically by the stock upon its presentation therebeneath on the stock support, said nozzle and support being mounted to allow of a relative movement toward and from each other, and means arranged to intercept the path of movement of said valve for limiting the extent of the opening thereof whereby any increase in the thickness of the stock will act to separate said nozzle and support without opening the valve beyond a predetermined amount.

2. A cement applying mechanism comprising a cement receptacle, a stock support, a nozzle leading from said receptacle and provided at its mouth with a valve, said valve opening automatically by the stock upon its presentation therebeneath on the stock support, means normally acting to close said valve, said nozzle and support being mounted to allow of a relative movement toward and from each other, and means arranged to intercept the path of movement of said valve for limiting the extent of the opening thereof whereby any increase in the thickness of the stock will act to separate said nozzle and support without opening the valve beyond a predetermined amount.

3. A cement applying mechanism comprising a cement receptacle, a stock support, a nozzle leading from said receptacle and provided at its mouth with a valve, said valve opening automatically by the stock upon its presentation therebeneath on the stock support, said nozzle being mounted to move toward and from the support, and means arranged to intercept the path of movement of said valve for limiting the extent of the opening thereof, whereby any increase in the thickness of the stock will act to lift the nozzle without opening the valve beyond a predetermined amount.

4. A cement applying mechanism comprising a cement receptacle, a stock support, a nozzle leading from said receptacle and provided at its mouth with a valve, said valve opening automatically by the stock upon its presentation therebeneath on the stock support, means normally acting to close said valve, said nozzle being mounted to move toward and from the support, and means arranged to intercept the path of movement of said valve for limiting the extent of the opening thereof, whereby any increase in the thickness of the stock will act to lift the noz-

zle without opening the valve beyond a predetermined amount.

5. A cement applying mechanism comprising a cement receptacle, a stock support, a nozzle leading from said receptacle, a spring-pressed valve mounted in said nozzle and provided with a toe projecting beyond the nozzle mouth when the valve is closed, said nozzle and support being mounted to allow of a relative movement toward and from each other, and means arranged to intercept the path of movement of said valve for limiting the extent of the opening movement thereof, whereby the stock fed to the machine will act upon the toe to open the valve and upon any increase in thickness thereof will act to separate the nozzle and support without opening the valve beyond a predetermined amount.

6. A cement applying mechanism comprising a cement receptacle, a stock support, a nozzle leading from said receptacle, a spring-pressed valve mounted in said nozzle and provided with a toe projecting beyond the nozzle mouth when the valve is closed, said nozzle and support being mounted to allow of a relative movement toward and from each other, and an adjustable regulator arranged to intercept the path of movement of said valve to limit the extent of the opening thereof, whereby the stock fed to the machine will act upon the toe to open the valve and upon any increase in thickness thereof will act to separate the nozzle and support without opening the valve beyond a predetermined amount.

7. A cement applying mechanism comprising a cement receptacle, a stock support, a nozzle leading from said receptacle, a spring-pressed valve mounted in said nozzle and provided with a toe projecting beyond the nozzle mouth when the valve is closed, said nozzle being mounted to move toward and from the support, and means arranged to intercept the path of movement of said valve for limiting the extent of the opening movement thereof, whereby the stock fed to the machine will act upon the valve toe to lift the nozzle without opening the valve beyond a predetermined amount.

8. A cement applying mechanism comprising a cement receptacle, a stock support, a nozzle leading from said receptacle, a spring-pressed valve mounted in said nozzle and provided with a toe projecting beyond the nozzle mouth when the valve is closed, said nozzle being mounted to move toward and from the support, and an adjustable regulator arranged to intercept the path of movement of said valve to limit the extent of the opening thereof, whereby the stock fed to the machine will act upon the valve toe to lift the notch without opening the valve beyond a predetermined amount.

9. A cement applying mechanism comprising a nozzle, a valve therefor, a regulator for controlling the extent of opening of said valve, and means for adjusting said regulator, whereby provision is made for delivering any predetermined volume of cement.

10. A cement applying mechanism comprising a stock support, a nozzle, a valve therefor constructed to be opened by the stock on said support, a regulator for controlling the extent of opening of said valve, and means for adjusting said regulator.

11. A cement applying mechanism comprising a stock support, a nozzle, a valve therefor constructed to be opened by the stock on said support, a regulator for controlling the extent of opening of said valve, and means for adjusting said regulator, and means for yieldingl sustaining said nozzle.

12. A cement applying mechanism comprising a stock support, a nozzle, a valve therefor constructed to be opened by the stock on said support, means acting to hold said valve normally closed, a regulator for controlling the extent of opening of said valve, and means for adjusting said regulator.

13. A cement applying mechanism comprising a yielding nozzle, means for guiding said nozzle in its movements, a yieldingly mounted valve for said nozzle having its end normally below the lower end of the nozzle, a regulator controlling the extent of opening of said valve, and means for adjusting said regulator.

14. A cement applying mechanism comprising a nozzle having an attached edge gage, a yieldingly mounted valve for said nozzle, means acting to normally close said valve, a regulator controlling the extent of opening of said valve, and means for adjusting said regulator.

15. A cement applying mechanism comprising a nozzle, a spring acting to normally depress the same, a valve in said nozzle, and means arranged to intercept the path of movement of said valve to regulate the extent of opening thereof.

16. In a cement applying mechanism, a nozzle provided at its lower end with an edge gage, combined with a valve in said nozzle, and means acting normally to close said valve.

17. In a cement applying mechanism, a nozzle provided at its lower end with an edge gage, combined with a valve, and a spring acting normally to close said valve.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

PERLEY R. GLASS.

Witnesses:
GEO. W. GREGORY,
ELIZABETH R. MORRISON.