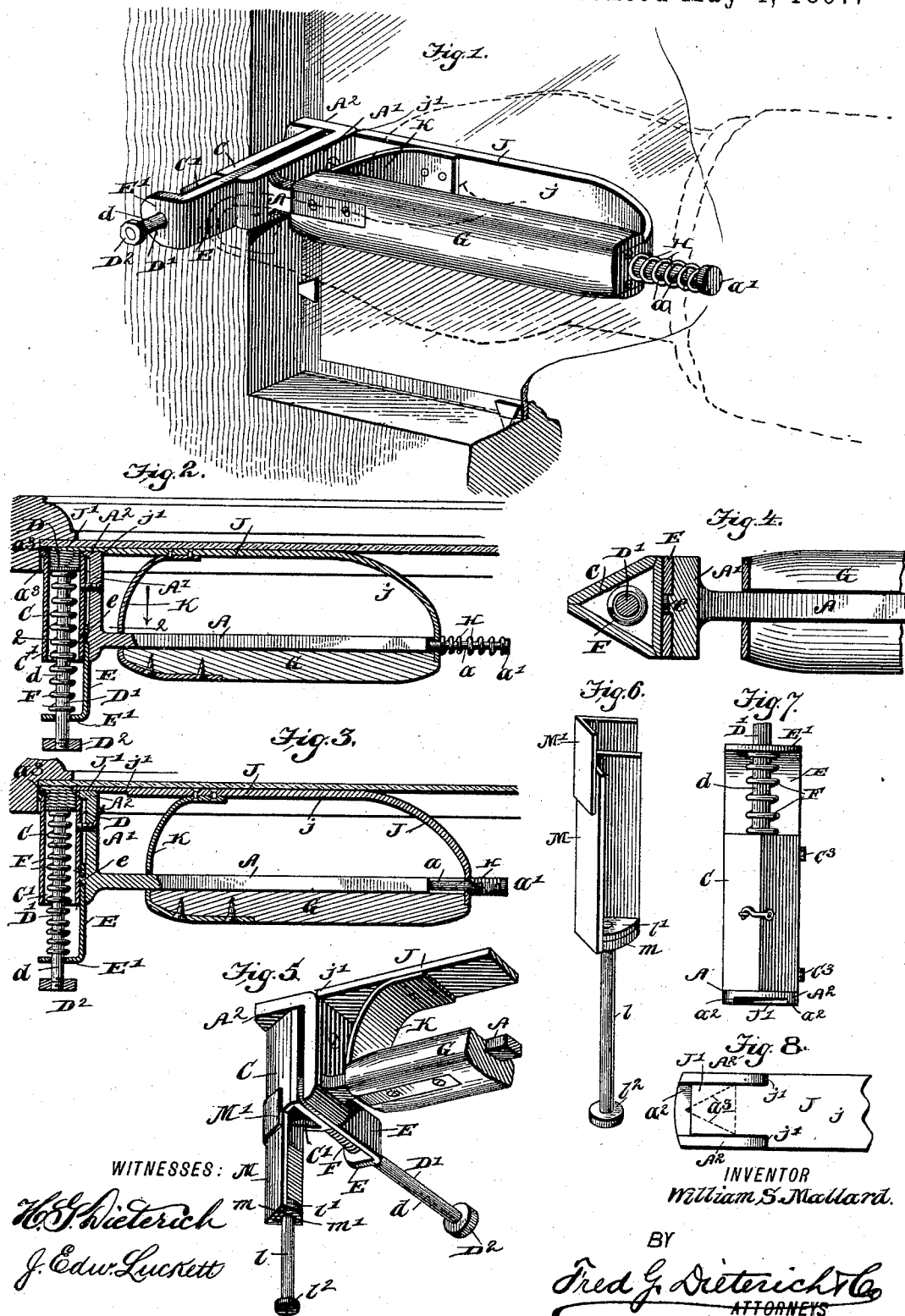


(No Model.)

W. S. MALLARD.
GLAZIER'S TRIANGLE SET.

No. 581,961.

Patented May 4, 1897.



UNITED STATES PATENT OFFICE.

WILLIAM S. MALLARD, OF DARIEN, GEORGIA, ASSIGNOR OF ONE-THIRD TO
PETER S. CLARK AND ALBERT E. DIMMOCK, OF SAME PLACE.

GLAZIER'S TRIANGLE SET.

SPECIFICATION forming part of Letters Patent No. 581,961, dated May 4, 1897.

Application filed February 7, 1896. Renewed March 22, 1897. Serial No. 628,746. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. MALLARD, residing at Darien, in the county of McIntosh and State of Georgia, have invented a new and Improved Glazier's Triangle Set, of which the following is a specification.

My invention is in the nature of a simple, inexpensive, and easily-manipulated tool for glaziers' use and in placing in position the triangle fasteners usually employed to pin in a glass pane; and among other objects my invention seeks to provide a device of this character so constructed that the glazier can hold same in his hand and yet use the hand for holding in place the glass.

It also has for its object to provide a device of this character having a magazine for holding the triangles and a simple automatic feed device which when the device is properly manipulated will force the triangles in a proper position to be forced into the sash or casing-rim by a slight pressure on the implement in the direction of the sash or casing-rim.

With other objects in view, which will hereinafter appear, my invention consists in an implement of the character stated embodying the peculiar combination and arrangement of parts, such as will be first described in detail, and then be specifically pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improvement as applied for use. Fig. 2 is a longitudinal section of the same, showing the parts in their normal position. Fig. 3 is a similar view showing the parts adjusted to admit of the feed of the triangle fastener against the glass in position to be inserted into the sash. Fig. 4 is a section taken on the line 4 4 of Fig. 2. Fig. 5 illustrates the preferred way of feeding the triangles into the holder. Fig. 6 is a perspective view of the feed devices. Fig. 7 is a view of a modified form of the holder hereinafter referred to, and Fig. 8 is a detail view.

In its practical construction my improved glazier's implement consists of a metallic frame formed of a guide-bar A, having its rear end reduced, as at a , and terminating in a head a' , for a purpose presently explained, and provided at the front with a right-angled member A' , the inner or lower end of which terminates in a shoe or glass-engaging portion

A^2 , provided on its under side with a groove or channel a^2 , such shoe portion also having a discharge-opening a^3 , triangular in shape, through which the triangles or fasteners are adapted to be fed in the manner presently described.

C indicates a holder or magazine which is of a triangular shape in cross-section and is mounted fixedly on the shoe portion A^2 , its upper end being open, as at C' , for the passage of the spring-actuated plunger D, consisting of the rod d and the plunger-head D. It will be observed by reference to Fig. 2 that the plunger-rod is guided and held to slide in the projecting member E' of the bracket member E, which is pivotally joined to the main frame, as at e , whereby such bracket can be swung to one side or at right angles to the holder when the plunger is lifted out of the holder, as shown in Fig. 5, and for a purpose presently explained.

The plunger-head D is normally forced down into the holder by the coiled spring F, disposed about the rod D' between the head D and the member E' , the said rod D' having a head portion D^2 , whereby it can be readily grasped by the fingers and pulled up.

G indicates a handhold, preferably made of wood and held to slide longitudinally on the bar A, such handle being held to its forward or normal position by the coiled spring H, held on the rear end of the bar A between its head portion and the rear end of the handhold, as shown.

Connected to and movable with the handhold is a metal shoe or glass-engaging member J, the rear end of which is curved upward, as at j , to avoid forming a sharp corner or edge, while its front end is reduced, as at J' , to form a combined keeper and plunger member, it being held to fit and slide on the groove a^2 of the fixed shoe member and normally held over the opening a^3 , and thereby keep the triangles in place during the ordinary handling of the implement, such end J' having shoulders j' , which serve to limit the forward movement of the handhold and the shoe or plunger $J J'$.

K indicates a brace member connecting the front end of the handhold and the shoe J, such member also forming a bearing member for the forefinger, as will hereinafter more fully appear.

It will be noticed by reference to Figs. 2 and 3 that the bracket E projects up above the handhold and also serves as a push member with which the thumb engages, as shown in Fig. 1.

So far as described the operation of my improvement is best explained as follows: The holder having been filled with triangles and the plunger set to press them downward, the glazier places the implement over the fingers of his hand, which permits of a free use of such hand in setting or holding the glass plate or pane in place. After the glass is properly set in position the implement is held with the shoe J against the glass and the front edge of the holder C against the sash or casing-rim. The glazier then forces the handhold and the shoe and plunger member back by pressing against the bracket E with his thumb until the plunger uncovers the opening a^3 , which permits the plunger to force the triangles down and the lowermost one out against the glass and in front of the plunger portion J'. The operator then forces the handhold and plunger member toward the sash or casing-rim by pressing against the member K, which causes the front end of the plunger to force the triangle into the sash and at the same time cut off the feed of the other triangles held in the holder.

It is manifest that by the use of my implement the glazier will not have to turn away from his work to pick up fasteners.

My improvement will be found especially useful in putting in show-case glass, as the glazier can have use of both hands to put the glass in position and then without turning loose be able to pin the glass in place, thereby avoiding the danger of breakage and effecting a great saving in time.

The object in making the bracket E pivotal is to admit of the use of a peculiar feed device for feeding the triangles into the holder in connection with my special form of implement, such device being best illustrated in Figs. 5 and 6 and consisting of a triangular trough-like body M, having one end closed, as at m , but provided with an aperture m' for the passage of the plunger-rod l , having a presser-head l' and an operating or pull knob l^2 .

M' denotes a guide member secured to the front end of the trough M, which is adapted to lap over the upper end of the holder C, and thereby make the trough practically a continuation of the said holder C.

The manner in which the device M is used is as follows: After the plunger D has been pulled out of the holder C the bracket E E', with the plunger, is swung over at right angles, as shown in Fig. 5, and the plunger held to bear against the outside of the holder. The trough, after being filled with triangles, is then held in the left hand at a proper angle and the holder fitted thereon. The plunger L is then moved upward, which forces the triangles up into the holder C, after which

the implement is turned to a proper position and the plunger D again set to move in the holder C.

While I prefer to use the trough and plunger M and L, it is manifest that one side of the holder C may be hinged, as at C^3 in Fig. 7, and provided with a lock-catch to hold it closed, it being understood that in this construction the triangles can be fed or laid in the holder by hand, the plunger D being, of course, raised as before, it being also understood that other minor changes in structure might also be made without departing from the broad principle of my invention.

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

1. An implement for the purposes stated, comprising a main frame, having a feed-magazine at the front end and a thumb-bearing member, said magazine having a discharge-opening at the bottom, a handhold movable longitudinally on the main frame having a shoe member having its front end held to slide over the magazine discharge-opening, said member adapted when drawn back from over the said opening to form a plunger to engage and force the fastener into the sash or frame as specified.

2. The combination in an implement as described, of the main frame, the feed-magazine, the thumb-rest, a spring-plunger for the feed-magazine, the handhold movable longitudinally on the main frame, and the shoe member having a reduced or plunger portion movable under the magazine discharge-opening as specified.

3. The combination with the main frame, having a magazine provided with a discharge at the lower end, and the longitudinally-movable handhold having a shoe member provided with a plunger portion movable under the magazine discharge, of the pivoted bracket member, the spring-actuated plunger carried thereby, as set forth.

4. The combination with the main frame, the magazine or holder, the movable handle and the combined shoe and plunger member arranged as shown, of the pivoted bracket, and the spring-actuated plunger, all arranged substantially as shown and described.

5. The combination with the main frame A, the pendent member A', having aperture a^3 , of the holder C, the plunger and the bracket E, projected above the frame A, the handhold, movable on the frame A, spring-pressed to its normal position, the shoe J, having a rear curved portion, and a reduced front member J', movable under the aperture a^3 , and the front guide member K, all arranged substantially as shown and for the purposes described.

WILLIAM S. MALLARD.

Witnesses:

MCDONALD DUNWADY,
WM. MCW. YOUNG.