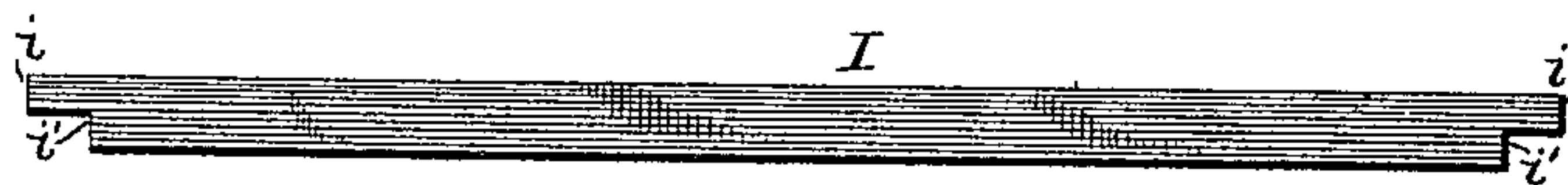
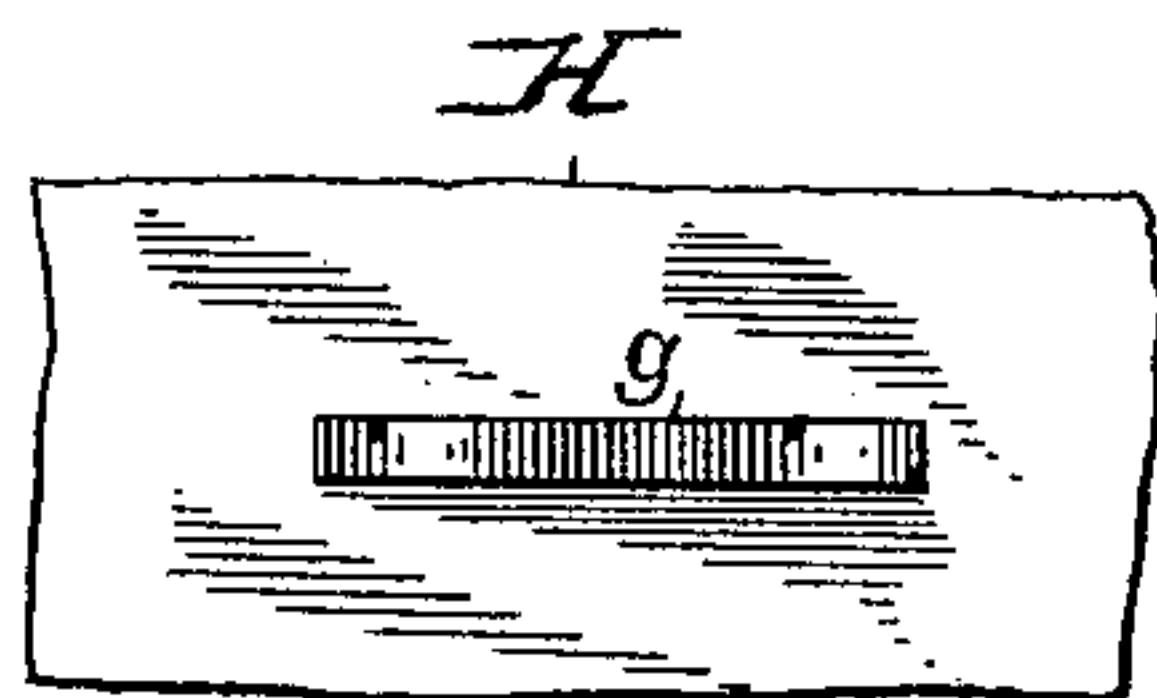
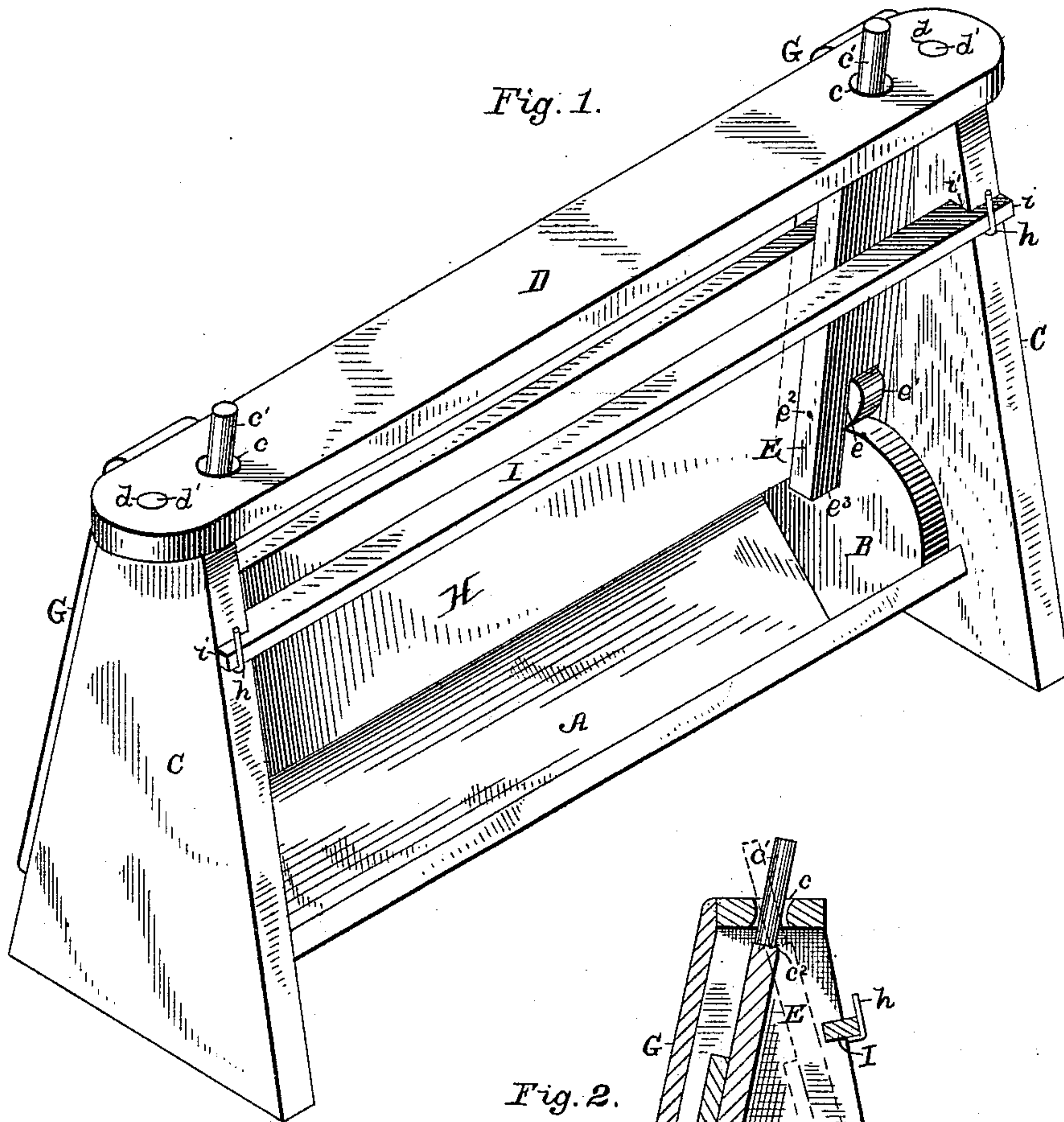


(No Model.)

L. B. FOY.  
FEED TROUGH.

No. 372,529.

Patented Nov. 1, 1887.



Witnesses  
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M. Redman

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# UNITED STATES PATENT OFFICE.

LAWRENCE B. FOY, OF AUDUBON, IOWA.

## FEED-TROUGH.

SPECIFICATION forming part of Letters Patent No. 372,529, dated November 1, 1887.

Application filed March 15, 1887. Serial No. 230,989. (No model.)

*To all whom it may concern:*

Be it known that I, LAWRENCE B. FOY, a citizen of the United States, residing at Audubon, in the county of Audubon and State of Iowa, have invented a new and useful Improvement in Feed-Troughs, of which the following is so full, clear, and exact a description as will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective of my improved feed-trough. Fig. 2 is a vertical section of the same. Fig. 3 is a detail view of a bar which is used to hold the pivotal guard against accidental displacement.

The object of my invention is to provide a feed-trough which may be used in pig-pens, calf-pens, or in any other inclosure in which animals are confined, and one which may be cleaned and purified without the necessity of entering the inclosure to remove the debris and other accumulations incident to such devices when used as feed-troughs for hogs, cattle, and other animals.

Another object of my invention is to provide a movable shield, which may be shifted from one side of the trough to the other for the purpose of cleaning the trough; and to that end it consists in the trough provided with a pivotal movable shield, which may be shifted to expose the trough from different sides at will, and in certain other details of construction, which will be hereinafter fully described, and what I deem to be novel and useful will be particularly pointed out in the claims at the end of the specification.

In Figs. 1 and 2 the trough proper is designated by the reference-letter A, which is provided in this instance with end pieces, B B, which are curved along their tops. The trough is securely held in position by upright standards C C. The standards are held securely together by the trough at the bottom, and at the top by the horizontal cross bar D, which is perforated at *d* to receive projections *d'* on the upper end of the upright standards C. The horizontal cross-piece D is also provided with larger perforations, *e*, through which slide

freely projections *e'* *e'* on the upper ends of the uprights E E, to which is secured the movable shield F. The projections *e'* *e'* are provided with shoulders *e''*, which limit their upward movement through the perforations *e* *e* in the horizontal bar D. Near the lower ends of the uprights E E are openings or recesses *e*, which are provided with friction-wheels *e'*, pivotally secured to said uprights at *e''*. The removable shield F consists of the uprights E E and board H, the said board H being provided on its outside with the handle *g*.

On the inside of the rigid upright standards C, I provide suitable fastening-clips, *h* *h*, in which I insert the recessed ends *i* *i* of the removable cross-bar I. This bar is recessed at *i'* *i'*, forming shoulders to prevent accidental lateral displacement of the bar. The object of this removable cross-bar is twofold: First, it prevents the removable shield from being accidentally displaced, and in the second place it facilitates the removal of the shield when it is desired to take it out entirely, as it often may be; and this removable shield will thus form a door, and by its removal a free passageway may be obtained out of the inclosure over the trough.

It is often desirable in constructing pig-pens and other inclosures for stock to dispense with any door except the one which opens where the trough is located, and by constructing the trough after the plan shown and described this purpose may be effected with little or no difficulty. By making the board H of the shield somewhat narrower than the length of the uprights E E a recess, *e'*, will be formed at the junction of the lower edge of the board H and the uprights E, so that when the shield is shoved in to close the trough from the inside the ends *e''* of the uprights E will extend slightly below the top of the upper inner edge of the trough, and the movable shield F will be held in position by its own gravity and the projecting ends *e''* *e''* on the lower portion of the uprights E E. By this means a man can put the feed for the stock in the trough and go away, leaving the feed in the trough, where it may remain until it is time to again feed the animals, when a child or servant can go and feed



them by simply raising the shield and pulling it over to the front edge of the trough. This is often desirable when the device is used by farmers and others who are obliged to be away  
 5 certain portions of the day, when it is necessary for children, servants, or housewives to feed the stock.

It is obvious that the longitudinal bar I may by replaced by suitable equivalent stops—such  
 10 as pins or any other equivalent device—without departing from the spirit of my invention. It is also quite obvious that the trough itself might be removed by grooving the side pieces and slipping the trough down into them with-  
 15 out departing from the spirit of my invention and without in any way destroying its usefulness, and I do not wish to be understood as limiting myself to the exact construction shown, as several of the details of construction  
 20 might be varied at will and still leave the structure one that would come within the meaning of the above description.

The outer or front edges of the rigid vertical standards C C are provided with guards G G,  
 25 which extend in sufficient distance toward the center of the trough to prevent the shield from being accidentally displaced on the outside and to limit the outward movement of the shield when it is pulled out to expose the trough  
 30 from the inside.

The operation of my device is as follows: When it is desired to feed the stock, the movable shield F is pushed over to the inside of the trough. The feed is placed in the trough.  
 35 Then the shield is slightly raised by means of the handle g, and the friction-rollers e' e' will facilitate the ready and easy movement of the shield, which is pulled out and dropped down on the outer edge of the trough, as shown in  
 40 Fig. 2. After the stock have consumed the food which was placed in the trough, the shield may be pushed back to the inside, the trough thoroughly cleansed, and a new supply of food may be placed in the trough, which is ready  
 45 for the stock to eat, and to which they may be given ready access by simply moving the shield outward, as above explained.

Having now described the objects, uses, and advantages of my device, what I desire to se-  
 50 cure by Letters Patent, and what I therefore claim, is—

1. In a feed-trough of the character described, the combination of the trough having curved end pieces and suitable supports there-  
 55 for with a vertically-reciprocating movable shield, which is loosely mounted in the structure and may be shifted from one side of the trough to the other side of the same by sliding its bottom portion over the curved ends of the  
 60 trough, substantially as and for the purposes specified.

2. In a feed-trough of the character described, the trough and suitable supports there-  
 65 for, in combination with a removable shield provided with bearings having friction-rollers and guide-tracks for the same to slide on, con-

structed substantially as described, whereby the movable shield may be readily and easily shifted from side to side, substantially as and for the purposes specified. .

3. In a feed-trough of the character de-  
 70 scribed, the combination of the main rigid standards supporting the trough, with a longitudinal cross-piece at the top provided with suitable perforations and a movable shield  
 75 provided with uprights, which extend through the perforations in the cross-piece and which are free to slide through the perforations in the cross-piece to facilitate the shifting of the shield, substantially as and for the purposes  
 80 specified.

4. In a feed-trough of the character described, the combination of the rigid standards provided with guards on one side and a  
 85 bar or stop on the opposite side, both secured to the rigid standards for limiting the movement of a movable shield, with a movable shield and a trough, all constructed and com-  
 90 bined to operate substantially as and for the purposes specified.

5. In a feed-trough of the character described, the rigid uprights and trough, in combination with a movable shield and guards on  
 95 the outside and a removable longitudinal bar on the inside, both secured to the rigid up- rights, all constructed and combined to operate substantially as described, whereby the inner bar may be removed and the shield  
 100 taken out to provide a door through which stock may pass where the trough is located, substantially as and for the purposes specified.

6. In a feed-trough of the character described, the combination of the movable shield provided with uprights rigidly secured thereto,  
 105 said uprights having projections on their upper portions forming shoulders to limit the upward movement of the uprights, with the main standards and the longitudinal cross-  
 110 bar provided with perforations through which slide the projections on the uprights, all constructed and combined to operate substantially as and for the purposes specified.

7. In a feed-trough of the character described, the combination, with the trough and the rigid standards therefor, of a shield consist-  
 115 ing of uprights having a board secured thereto, said board being of a width less than the length of the uprights, forming a recess below the shield at the lower junction of the shield and the uprights, all constructed and combined  
 120 to operate so the movable shield will be securely held in position on the edge of the trough and locked in such position by its own gravity against accidental displacement, substantially as and for the purposes specified. .

8. In a feed-trough of the character described, the combination of the main rigid up-  
 125 rights provided with projecting pins at the top and a movable shield provided with projections, with a rigid longitudinal brace per-  
 130 forated to receive the projections on the upper ends of the rigid standards and provided with



second perforations of sufficient size to receive the projections on the movable shield, which projections slide freely through the said perforations, and suitable stops for limiting the movement of the shield in its vertical and lateral movements, all constructed and combined to operate substantially as and for the purposes specified.

In testimony that I claim the above as my invention I hereunto set my hand in the presence of two subscribing witnesses.

LAWRENCE B. FOY.

Witnesses:

F. M. VAN PELT,  
H. W. HANNA.