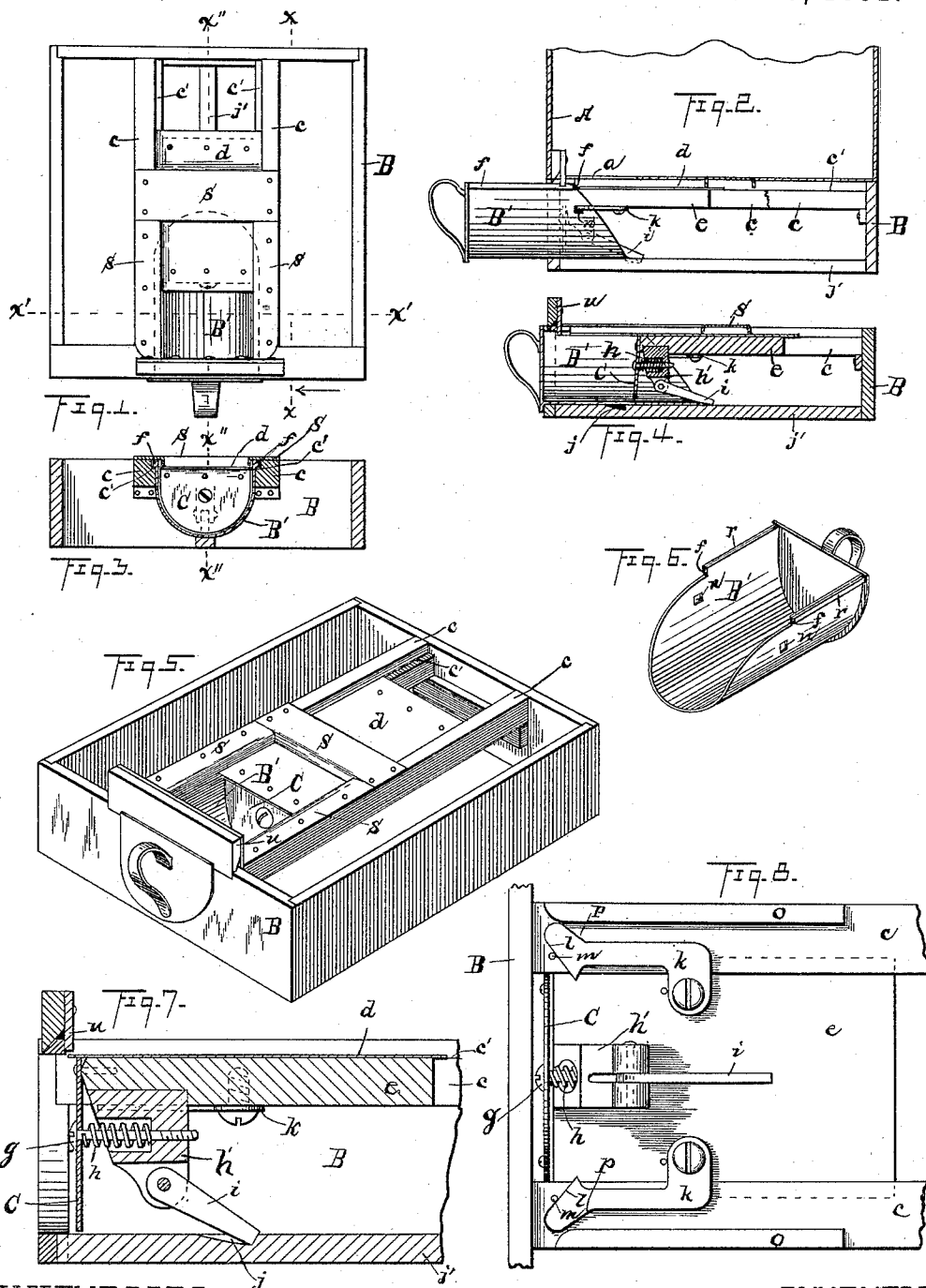


(No Model.)

H. F. WILLSON.
BASE DELIVERY CADDY AND SCOOP.

No. 465,090.

Patented Dec. 15, 1891.



WITNESSES.

Willis S. Lowrie,
J. Lowrie

INVENTOR.

Henry F. Willson

UNITED STATES PATENT OFFICE.

HENRY F. WILLSON, OF ELYRIA, ASSIGNOR OF ONE-HALF TO JOHN M. KINNARD, OF CLEVELAND, OHIO.

BASE-DELIVERY CADDY AND SCOOP.

SPECIFICATION forming part of Letters Patent No. 465,090, dated December 15, 1891.

Application filed August 14, 1891. Serial No. 402,629. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. WILLSON, a citizen of the United States, residing at Elyria, in the county of Lorain and State of Ohio, have invented a new and useful Base-Delivery Caddy and Scoop, of which the following is a specification.

My invention relates to improvements in caddies from which the goods are delivered by means of a measuring-scoop from the base in the desired quantity. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of base. Fig. 2 is a vertical section on dotted line X X, Fig. 1. Fig. 3 is a transverse vertical section of base on dotted line X' X', Fig. 1. Fig. 4 is a vertical section of base on dotted line X'' X'', of Fig. 1, showing the scoop inserted. Fig. 5 is a perspective view of the base. Fig. 6 is a perspective view of the scoop. Fig. 7 is an enlarged vertical section on line X'' X'', Fig. 3, with the scoop removed. Fig. 8 is an inverted view of the base.

Similar letters refer to similar parts throughout the several views.

A represents the box of the caddy, which is constructed in the usual form, but having an aperture *a* cut through its bottom at the front side sufficiently large to admit of the free passage of the material.

B represents a base on which the caddy sets, and is made to conform to it in shape and size. Two bars *c c* are secured at the top to the front and rear sides of the base and extend parallel across it, upon which the working parts of the apparatus are supported and move. The adjacent upper corners of said bars are rabbeted out, as seen at *c' c'*, so as to form a ledge on each, on which is placed a thin metallic plate *d*, the edges of which rest on and move on said ledges *c' c'* from front to rear and serve to cut off or stop the flow of material while the scoop is removed, and are so placed that when moved forward to the front they completely close the aperture *a* in the bottom of the box, but when forced back by the insertion of the scoop the aperture is opened so that the contents can freely flow through it into the scoop. If the scoop is withdrawn, the act of withdrawal draws the

plate forward to the front, where it is securely locked, so that it cannot be conveniently forced back by accident or design, and thus discharge the contents on the floor, as will be more fully described.

The scoop B' is constructed as seen in Fig. 6, having its upper edges parallel with each other and with the bottom of the scoop. Shoulders *f f* are formed as seen in the drawings, which shoulder impinges the front end of plate *d* near its sides, and by the act of forcing the scoop inward the plate and its appendages is forced backward with it and the aperture *a* is opened and the grain flows into and fills the scoop, which may then be withdrawn, and by the act of withdrawal the plate *d* is returned to the front and the flow of grain is entirely stopped. This is accomplished as will be fully described. To the under side of said plate *d* is secured a block of wood *e*, thick enough to extend down flush with the lower side of bars *c c* and wide enough to fill the space between them, so as to work freely, and long enough to extend from the rear of plate *d* to near its front end. To the front end of this block is secured an apron C. The lower portion of this apron is cut round, so as to conform to the inside of the scoop, and is large enough to fill it just so as to give a fair clearance, so that the scoop can easily slide over it. Said apron is so secured that it will vibrate freely and is rendered adjustable by means of a thumb-screw *g*, which passes through said apron and screws into a projection *h'* on the under side of block *e*, as seen in Fig. 7. Said screw also passes through a spiral spring *h*, which serves to hold the plate against the head of the thumb-screw. This screw is to adjust the apron either out or in so as to regulate the size of the compartment in the scoop which is formed by said apron, while the scoop is inserted in the base. To the lower end of projection *h'* is pivoted a pawl *i*. Said pawl *i* when the scoop is removed, as seen in Fig. 7, rests securely in a seat *j*, formed in bar *j'*, and thus the apparatus is effectually locked so as to prevent its being forced back. When the scoop is inserted and the operator desires to take out a charge, the end of said scoop impinges the under side of said pawl near its

lower end and lifts it from its seat, thus unlocking the apparatus.

The device before alluded to for clamping the scoop to plate *d* and securely holding it until the charge has been taken out and the aperture *a* effectually closed, is constructed as follows: Automatic clamping hooks or dogs *k k* are constructed in the form seen in Fig. 8, and are secured so as to work freely to near the edges of block *e* on the under side. The catch end is provided with a diagonal surface *l*, which, when brought forward to the point where it is to relieve or let go of the scoop, impinges a pin *m*, and is by it forced outward, thus withdrawing the hooks from the holes *n* formed in the sides of the scoop. *o* represents thin strips of wood, which are secured to the outer edge of bars *c c*, on the under side, as seen in Fig. 8. The use of these strips is to force the hooks *k* into the holes *n* of the scoop and prevent them from coming out while the plate *d* is passing back and forth in the act of taking out a charge. The front ends of these strips are cut off at a point where the hooks should be withdrawn, and thus allow them to be thrown outward by the action of the inclined surface on the end of the hooks pressing on the pin *m*. Hooks *k* are provided with another diagonal surface *p*, which is parallel to the diagonal surface *l*. This surface presses against the front end of strips *o* and forces them into holes *n* in the scoop, thus clamping the scoop to the plate *d*. The scoop is so made that it can pass freely into its place, and just wide enough to fit or fill the space between the bars *c c* while the hems fit in so as to come just above the ledges *c' c'* on which the plate *d* rests. A casing *S* of sheet metal finishes down over the edge of the scoop and across from one to the other of the bars *c c* to prevent waste of the grain and clogging. A strike *v* is placed in a position to strike off the scoop while it is being drawn out under it. This strike is made of any elastic material, such as a brush or a strip of rubber.

The operation of this apparatus is as follows: The scoop is inserted in the cavity and passes in to near the point where the shoulders *f f* come in contact with the plate *d* and

raise the locking-pawl out of its seat, and in passing forward, pressing the plate *d* backward, the clamping dogs or hooks *k k* are forced into holes *n n* of the scoop, and the whole moves freely backward the length of the scoop, and may be withdrawn at will. In the meantime the scoop has been filled, and if withdrawn the plate is drawn forward to its original position until the diagonal surfaces on the hooks impinge the pins *m m*, and thus withdraw the hooks *k k* from the holes *n n*, and the scoop is released from the apparatus.

The amount of material brought out in scoop may be regulated by the set-screw *g*, and without any change a scoop holding a pound, a half-pound, or a quarter of a pound may be inserted in the same place and bring out those different amounts.

What I claim as new, and desire to secure by Letters Patent, is—

1. A base-delivery caddy wherein is combined a horizontally-reciprocating cut-off *d*, secured to block *e* and provided with an automatic clutching device consisting of hooks *k k*, secured thereto and operated by pin *m*, and strips *o*, as specified, the adjustable apron *c*, secured to the block *e*, the scoop *B'*, provided with holes *n n*, and shoulders *f f*, the whole being constructed and operating in the manner and for the purpose specified.

2. The metallic plate *d*, secured to block *e* and sliding on ways *c' c'*, the apron *c*, secured to said block and made adjustable by means of screw *g* and spring *h*, clamping-hooks *k k*, secured to said block *e* and operating, as specified, in combination with the scoop *B'*, having holes *n n* and shoulders *f f*, as described, and locking-pawl *i*, pivoted to the lower end of projection *h'*, and seat *j* in bar *j'* for the purpose of making an automatic base-delivery caddy which will deliver the material in uniform constant quantities.

H. F. WILLSON.

Witnesses:

MINNIE M. KELCHNER,
MARY L. CLARK.