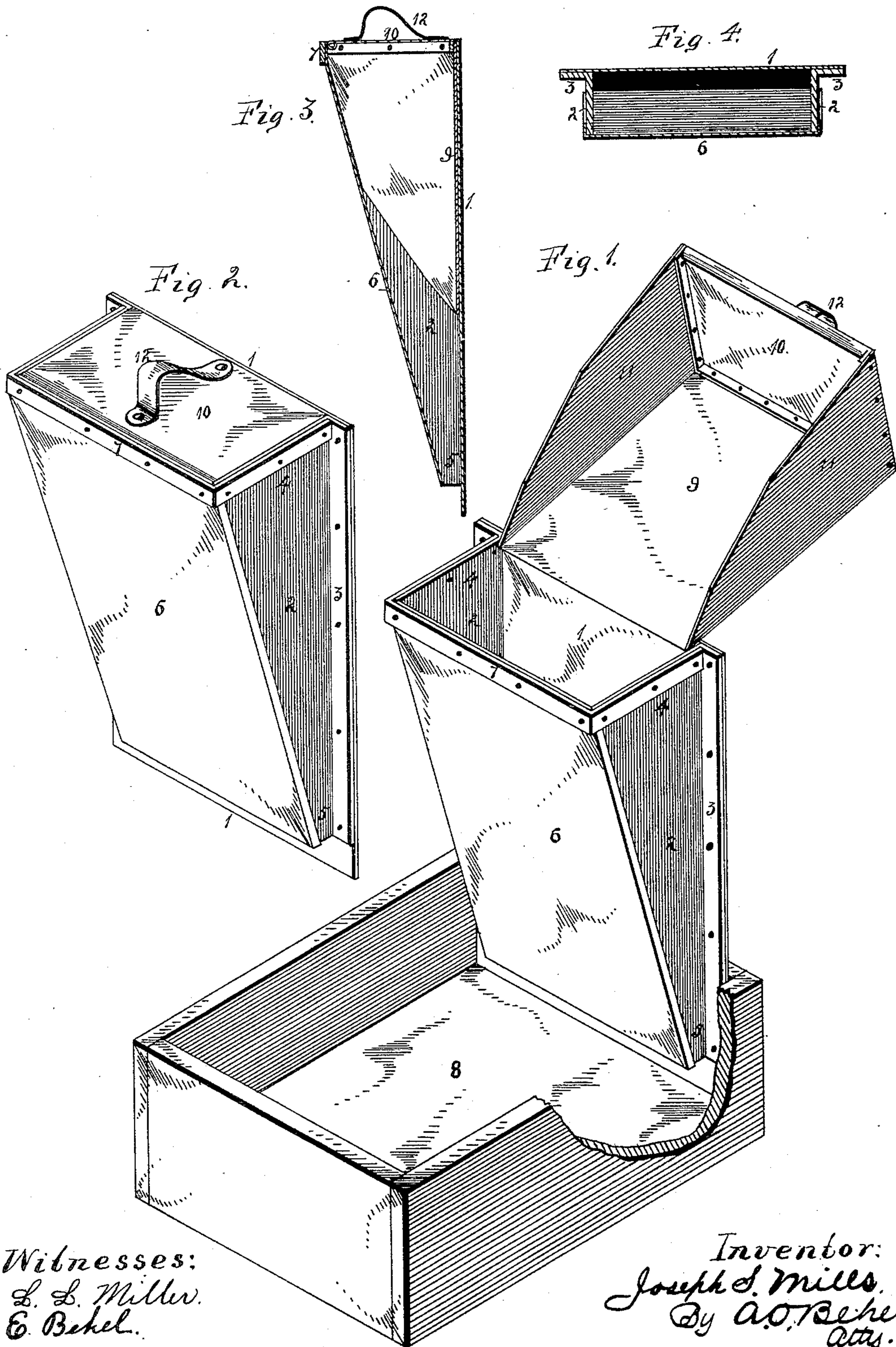


(No Model.)

J. S. MILLS.  
REGULATOR FOR FEED BOXES.

No. 453,817.

Patented June 9, 1891.





# UNITED STATES PATENT OFFICE.

JOSEPH S. MILLS, OF UNION, ILLINOIS.

## REGULATOR FOR FEED-BOXES.

SPECIFICATION forming part of Letters Patent No. 453,817, dated June 9, 1891.

Application filed January 29, 1891. Serial No. 379,514. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH S. MILLS, a citizen of the United States, residing at Union, in the county of McHenry and State of Illinois, have invented certain new and useful Improvements in Feed-Regulators for Horse Feed-Boxes, of which the following is a specification.

The object of this invention is to construct a feed-regulator having its sides more rigid than its front, so that the front is made yielding in order to allow ground feed to be fed to the horse, and when it becomes clogged the horse can press in on the front, which will allow the feed to descend.

The further object of this invention is to construct a grain-scoop which will also act as a cover for the feed-regulator, and its form is such as to prevent it from descending too far into the regulator.

In the accompanying drawings, Figure 1 is an isometrical representation of a feed-regulator embodying the features of my invention in which the scoop is discharging the grain into the regulator. Fig. 2 is an isometrical representation of the regulator having its upper end closed by the scoop. Fig. 3 is a vertical central section through the regulator in its closed position. Fig. 4 is a transverse section through the regulator, showing the rigid sides and flexible front.

The feed-regulator represented in the drawings consists of a back 1, of larger dimensions than the main portion of the regulator. To this back is secured sides 2 by rivets passing through the flange 3 of the sides and through the back. These sides 2 are wider at their upper ends 4 than at their lower ends 5, for a purpose to appear hereinafter. A front 6 is connected to the sides 2 in any suitable manner and is of lighter material than the sides. A band of iron 7 is riveted to the front and upper ends of the sides, which serves to stiffen the structure.

A grain-regulator constructed as herein described is placed in an ordinary grain-box 8, found in all mangers, and as the back extends below the bottom of the front of the regulator a space will be formed between the regu-

lator and bottom of the feed-box. Grain is placed in the regulator, and, owing to the contracted opening at its lower end, only a small quantity of grain at a time will be at the disposal of the horse, and he will not be able to waste his grain by taking more than he can manage at one time, and he will not have a chance to throw the grain over the sides of the grain-box.

Horsemen often desire to feed ground feed with whole grain to the horses, and in practice it has been found that when a rigid front to the regulator has been employed such feed will clog in the regulator, and I have found in practice that if the front of the regulator be made yielding the horse will press in the front, thereby crowding the feed upward in the regulator, and when the front is allowed to assume its original position the feed will readily descend within reach of the horse, and a horse will continue to press in the front so long as the feed descends to reward his efforts, and I find the best construction is to make its sides of heavier material than the front, so that the yielding will all be in the front, and the band 7 will hold the upper ends of the sides and front in proper form.

It is absolutely necessary that a cover be provided for the upper end of the regulator, for if an open-ended regulator be employed chaff, hay, and straw will find its way into the regulator and completely clog the descent of the grain. I have therefore constructed a scoop of such form as will fit within the open end of the regulator, and consists of a bottom 9, end 10, and sides 11. The sides are cut on an angle to fit the inside of the regulator, and a handle 12 is secured to the end 10. This scoop is employed to fill the regulator with grain or ground feed, and when not in use is placed within the regulator, so that the end forms a cover, as shown at Figs. 2 and 3, which also prevents the horse eating out of the top of the regulator. By this arrangement a scoop is always at hand and holds the proper quantity for an ordinary feed.

I claim as my invention—

1. A feed-regulator for horse feed-boxes, consisting of a receptacle having a contracted

lower end, a flexible front, and rigid sides, said front portion secured at its edges to the sides.

- 5 2. A feed-regulator for horse feed-boxes, consisting of a receptacle having a contracted lower end, a scoop tapering to the forward end, the height and taper of the sides of said

scoop being such as to limit the distance it may extend into the feed-receptacle.

JOSEPH S. MILLS.

Witnesses:

A. O. BEHEL,  
L. L. MILLER.