

(No Model.)

F. F. LANDIS.

DEFLECTOR FOR PNEUMATIC STRAW STACKERS.

No. 519,473.

Patented May 8, 1894.

FIG. 1-

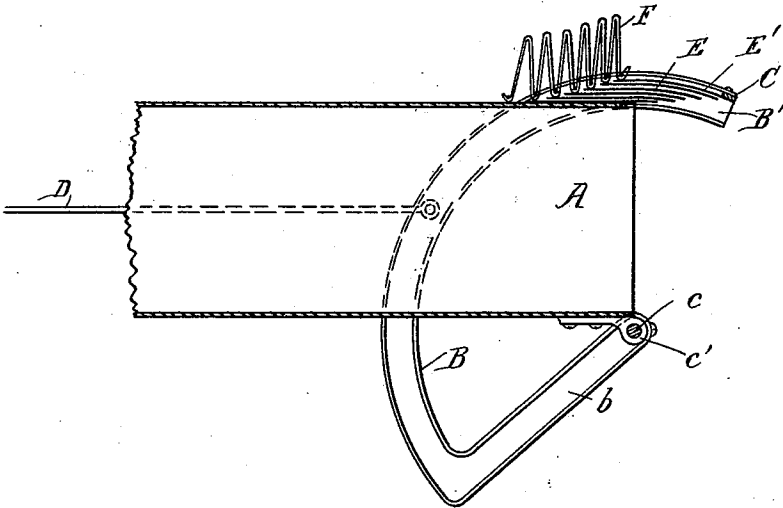


FIG. 2-

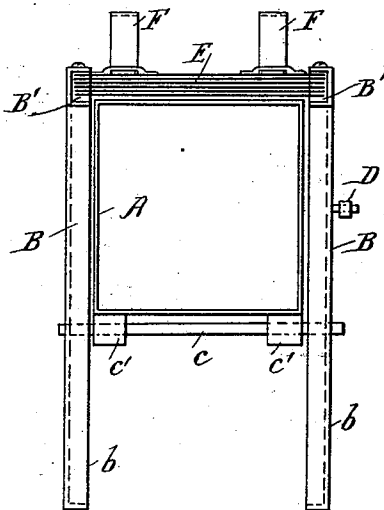


FIG. 3-

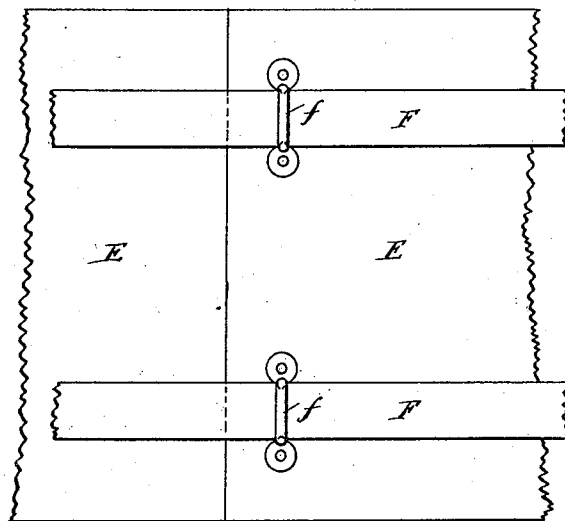
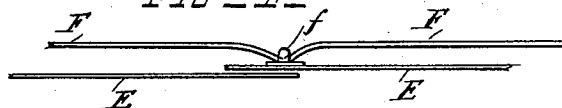


FIG. 4-



WITNESSES

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FRANK F. LANDIS, OF WAYNESBOROUGH, PENNSYLVANIA.

DEFLECTOR FOR PNEUMATIC STRAW-STACKERS.

SPECIFICATION forming part of Letters Patent No. 519,473, dated May 8, 1894.

Application filed December 13, 1893. Serial No. 493,542. (No model.)

To all whom it may concern:

Be it known that I, FRANK F. LANDIS, a citizen of the United States, residing at Waynesborough, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Deflectors for Pneumatic Straw-Stackers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to devices attached to the mouths of the discharge pipes of pneumatic straw stackers for the purpose of deflecting the straw as it issues from the pipe and forcing it downward upon the stack.

This invention consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings: Figure 1 is a longitudinal section through the end of the discharge pipe showing the deflector drawn back. Fig. 2 is an end view of the pipe and the deflector. Fig. 3 is a detail plan view of a portion of the deflector when pushed forward; and Fig. 4 is a side view of the same.

A is the end or mouth portion of the discharge pipe of the straw stacker; which is preferably rectangular in cross-section, but which may be made round or oval, if desired.

B are oscillatory segments of disks pivotally connected to the end of the pipe A. Each segment might be a solid flat plate, but it is preferably formed with open side portions between its curved peripheral portion and its hub, and the peripheral portion is connected to the hub by an arm *b* which is secured to the shaft *c* journaled in brackets *c'* secured to the under side of the end of the pipe. The segments are substantially concentric with the shaft *c*, and are provided with grooves *B'* in their sides.

C is a bar secured to the front ends of the two segments.

D is a rod pivoted to one of the segments and affording a means for moving it back and forth, but any other approved operating device may be used for moving the segments.

E are plates having their sides arranged in the grooves *B'* and connected together in a series.

These plates preferably formed of thin sheet metal and are slightly curved, as shown, to conform to the curvature of the segments. When the segments are moved back, as shown in Fig. 1, the plates E are piled up, one above the other, on top of the end of the pipe A. The plates E are connected together by one or more bands or belts of flexible material or jointed metallic links may be used if desired. F is a leather band used for this purpose, and *f* are clips secured to the plates E. and engaging with the belt. These clips press hard upon the upper surface of the belt and their end portions are let into notches in the edges of the belt so that the belt may bend freely but cannot slip in the clips. The front plate E' of the series is secured to the bar C, and all the remaining plates are free to slide in the grooves *B'* of the segments, and the rear plate is attached to the top of the pipe. When the deflector is pushed forward, the plates E are moved out and the straw which strikes them is deflected onto the top of the stack. When the deflector is drawn back the straw passes out of the mouth of the pipe in a straight line, and the plates pile up on top of the pipe. It will be noticed that open spaces are left at the sides of the mouth of the pipe when the deflector is pushed forward. The blast of air escapes through these spaces so that no additional resistance is thrown upon the means employed for producing the blast of air which drives the straw through the discharge pipe, although the end of the deflector coming in front of the end of the discharge pipe tends to obstruct the blast issuing therefrom and to produce a back pressure inside the pipe.

What I claim is—

1. The combination, with a discharge pipe, of two segments of disks pivoted to the underside of the pipe at its mouth, and extending upwardly on each side of the pipe to its top, and a series of substantially flat deflector plates operatively connected together and slidable one above the other, the front plate of the series being secured to the front ends of the said segments, and the rear plate being secured to the top of the discharge pipe, substantially as set forth.

2. The combination, with a discharge pipe,

of two segments of disks pivoted to the under side of the pipe at its mouth and provided with grooves in their sides, a bar connecting the front ends of the said segments, and a series of superposed plates operatively connected together and engaging with the said grooves, one end of the series being connected to the said bar and the other end to the top of the discharge pipe, substantially as set forth.

3. The combination, with a discharge pipe, of two segments of disks pivoted to the under side of the pipe at its mouth, a series of deflector plates slidable one above the other, the front plate of the series being secured to the front ends of the said segments and the rear plate being secured to the top of the discharge pipe; and flexible connecting straps

secured to each plate of the series, substantially as set forth.

4. The combination, with a series of superposed plates, of the bands of flexible material, the clips pressing on the bands, engaging with their edges, and secured to the said plates; a discharge pipe, and the oscillatory segments of disks pivoted to the under side of the pipe at its mouth and supporting and operating the said series of plates, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK F. LANDIS.

Witnesses:

HERBERT W. T. JENNER,
ALF. N. RUSSELL.