(No Model.)

F. F. LANDIS.

MOUTHPIECE FOR PNEUMATIC STRAW STACKERS.

No. 519,474. Patented May 8, 1894.

FIG. 1.

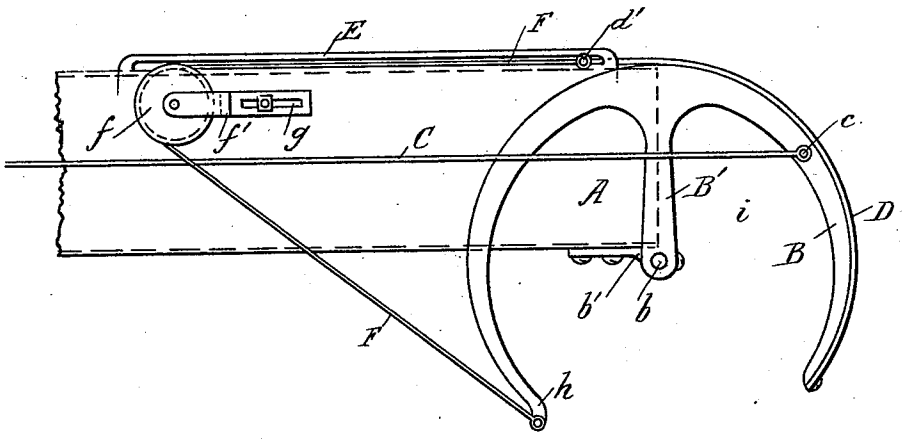


FIG. 2.

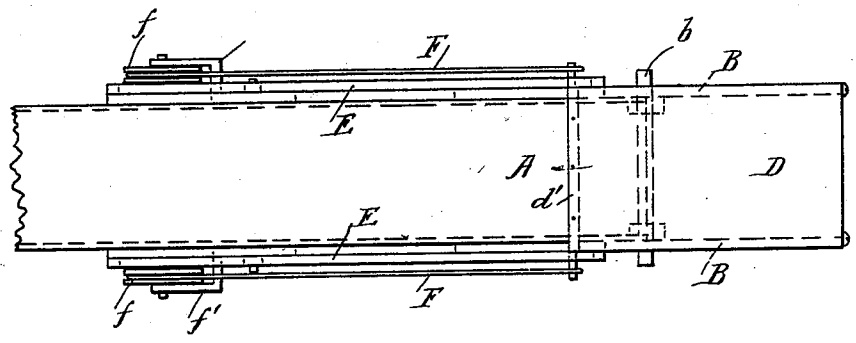
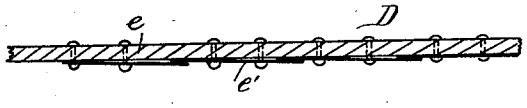


FIG. 3.



WITNESSES

Jno. F. Doran Jr.

J. D. Williams.

INVENTOR

Frank F. Landis.

by Herbert W. J. Jenner.

Attorney

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK F. LANDIS, OF WAYNESBOROUGH, PENNSYLVANIA.

MOUTHPIECE FOR PNEUMATIC STRAW-STACKERS.

SPECIFICATION forming part of Letters Patent No. 519,474, dated May 8, 1894.

Application filed December 13, 1893. Serial No. 493,544. (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 Mouthpieces 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 mouth pieces for the discharge pipes of pneumatic straw stackers; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings: Figure 1 is a side view of the mouth of the discharge pipe; and Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal section of a portion of the flexible deflector, drawn to a larger scale.

A is the end or mouth portion of the discharge pipe of the straw stacker, which is preferably rectangular in cross-section.

B are oscillatory segments of disks secured on the ends of the shaft *b* which is journaled in bearings *b'* secured to the lower side of the pipe close to its mouth.

C is a rod pivoted to one of the segments by the pin *c* and affording a means for oscillating the segments, but any other approved means may be used which will accomplish the same purpose. The segments B are provided with arms B' which join onto their central portions and form the means by which the segments are connected to the shaft *b*.

D is a flexible deflector one end of which is secured to the front ends *d* of the segments in any approved manner. The other end of the deflector is secured to a bar *d'* which is secured to the other ends of the segments, and slides in the longitudinal guides E secured to the upper part of the discharge pipe. The segments are pivoted to the pipe so that the peripheral portions of the segments are substantially in line with the upper side of the pipe and the guides or any equivalent parts which support the rear end of the deflector, so that the deflector may slide freely off its supports onto the curved peripheral portions of the segments, and in a similar manner be slid back again onto the said supports, and always present an unwrinkled surface to the straw which issues from the end of the said pipe. The deflector may be formed of any flexible material which is not easily distorted, and it is preferably formed of a sheet of india rubber *e* covered with thin plates of sheet iron *e'*. The plates are riveted to the india rubber and their ends overlap each other as shown in Fig. 3.

F are cords, or their equivalents such as wires or chains, which pass over the guide sheaves *f* journaled in the brackets *f'*. The brackets *f'* have elongated holes *g* and are secured to the sides of the pipe by the bolts *g'*. Each cord F is secured at one end to the bar *d'* and at the other end to the rear end *h* of a segment. The elongated holes *g* permit the brackets and sheaves to be moved so as to keep the cords taut. The blast of air and the straw are driven out of the end of the discharge pipe in a straight line when the deflector is pulled back. When the deflector is pushed forward the straw is forced downward onto the stack, and a large portion of the blast escapes through the open side portions *i* of the segments, so that the current of air is not checked, and no additional resistance is thrown upon the means employed for producing the blast of air which drives the straw through the discharge pipe. Other equivalent compensating devices for keeping the deflector taut may be used, such as for instance a weight or a spring attached to the rear end of the deflector and operating to hold it extended.

Complete wheels may be used as the equivalents of segments for carrying the deflector but the segments are preferred as solid wheels obstruct the side movement of the blast, and perforated wheels catch the straw and choke up the mouth of the pipe.

What I claim is—

1. The combination, with a discharge pipe, of two segments of disks each provided with an arm pivoted to the discharge pipe at its mouth and having an open space between the said arm and the peripheral portion of the segment, to permit the lateral escape of the blast, and a flexible deflector having its front end secured to the front ends of the said segments, substantially as set forth.

2. The combination, with a discharge pipe,

of two segments of disks pivoted to the under side of the discharge pipe at its mouth, a flexible deflector attached to the front ends of the segments, cords attached to the rear ends of the deflector and to the rear ends of the segments, and guide pulleys for the said cords to pass over, 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.