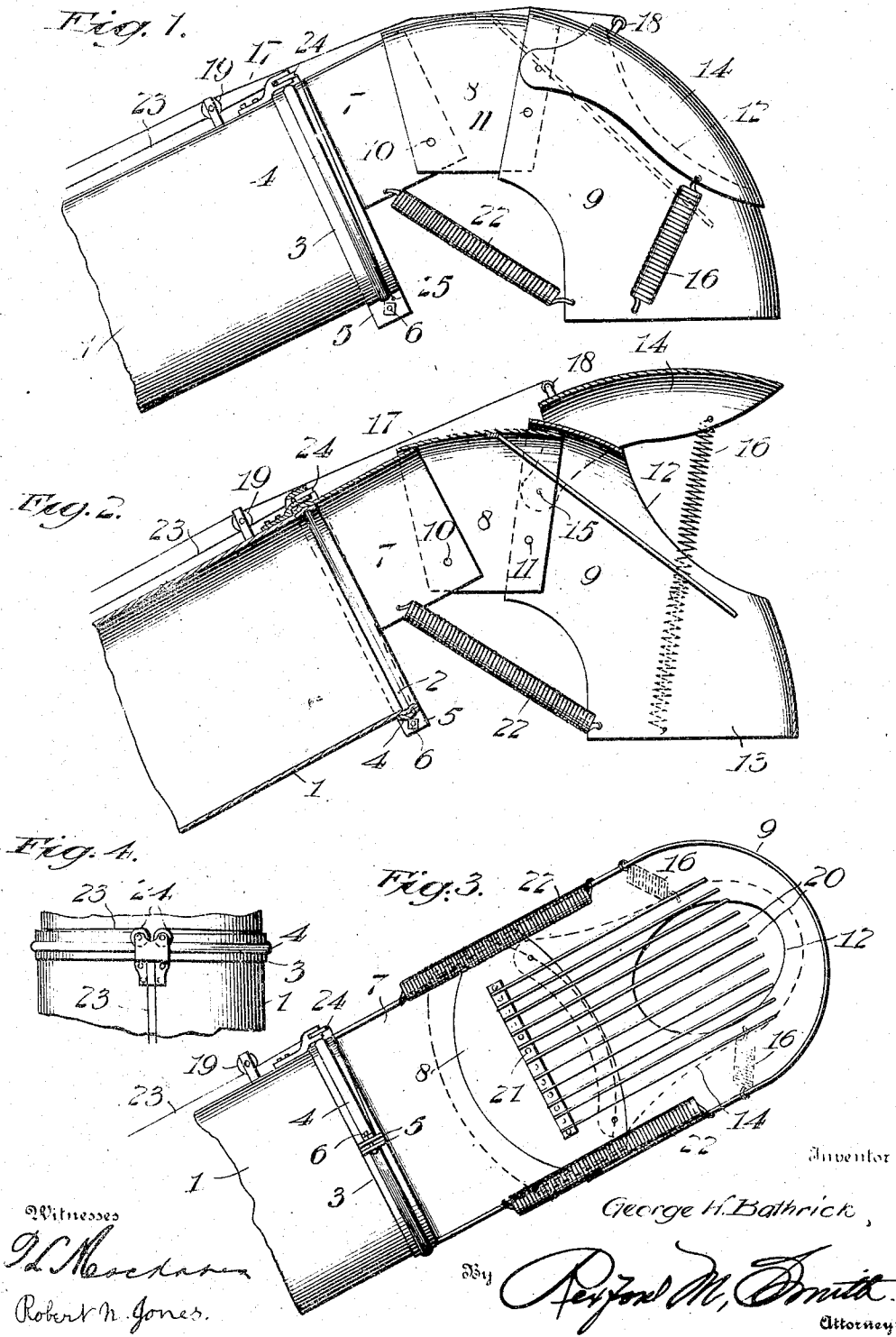


G. H. BATHRICK.  
PNEUMATIC STRAW STACKER.  
APPLICATION FILED MAR. 29, 1909.

941,606.

Patented Nov. 30, 1909.



# UNITED STATES PATENT OFFICE.

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## PNEUMATIC STRAW-STACKER.

941,606.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed March 29, 1909. Serial No. 486,342.

*To all whom it may concern:*

Be it known that I, GEORGE H. BATHRICK, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented a certain new and useful Pneumatic Straw-Stacker, of which the following is a specification, reference being had therein to the accompanying drawing.

10 In building a straw stack by means of a wind stacker of ordinary construction, it has been a difficult if not an impossible thing heretofore to deflect the straw downward from the discharge mouth of the hood at the outer end of the chute without giving the straw the full strength of the blast, and, in finishing out the top of the stack, this blast is frequently so strong when deflected or turned upon the loose material at the top of the stack that the straw, chaff and light material does not lie where it is deposited by the blast but is scattered over the top of the stack and is blown away in a wasteful and very unsatisfactory manner.

25 The object of the present invention is to provide means whereby the blast may be controlled by the operator of the machine both as to direction and strength, whereby the straw may be delivered either downward or sidewise with a partial or full blast, and either blown with considerable force upon the stack or deposited lightly thereon according to varying conditions and the shape of the stack as it is being built up.

35 With the above general object in view, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed.

40 In the accompanying drawings:—Figure 1 is a side elevation of the invention, showing the hood applied to the discharge end of a stacker chute. Fig. 2 is a vertical longitudinal section through the same. Fig. 3 is a side elevation thereof with the hood turned to deliver the straw to the right. Fig. 4 is a detail plan view showing the means for revolving the hood to adapt the same for side delivery.

50 Referring to the drawings, 1 designates the discharge end of a stacker chute as now ordinarily employed but which for the purpose of carrying out the present invention is provided, in the preferred embodiment of the invention, with an annular bead or rib 2

extending around the extreme edge thereof. Extending around this ribbed extremity of the stacker chute is a revoluble collar 3 having a hollow bead 4 which fits the rib 2 so as to prevent the collar from slipping off the end of the chute while permitting said collar to be turned upon the chute. The collar is shown as formed of a strip of metal bent into the form of a ring and provided with end flanges 5 adapted to receive a fastening bolt 6, the construction described enabling said collar to be applied and removed from the chute.

The hood embodies overlapping and pivotally connected sections 7, 8 and 9, the section 7 being preferably secured fixedly to the collar 3 while the section 8 is pivotally connected to the section 7 at the point 10, the sections 8 and 9 being pivotally connected at 11. The end section is provided with a large blast outlet aperture 12 at a point above the discharge mouth 13 thereof, which blast aperture is adapted to be opened and closed by means of a concavo-convex shutter the same being pivotally connected to the hood at 15. The shutter 14 is normally held closed by means of shutter closing springs 16 one end of each of which is connected to the shutter while the opposite end is connected to the hood section 9, as shown.

17 designates a shutter controlling connection one end of which is connected to the shutter 14 at the point 18 said connection leading along the chute to a point near the base thereof where it is operated by the attendant who is thereby enabled to control the blast delivered from the mouth of the hood. The connection 17 is also used to fold the hood, as a whole, it being obvious that by pulling back on the connection 17, the shutter 14 will first be thrown open until it comes in contact with the adjacent section of the hood whereupon the pulling action of the connection 17 will be transferred to the hood sections, resulting in folding the sections back close to the end of the stacker chute whereupon the blast together with the straw will be delivered directly from the end of and in line with the stacker chute.

105 In order to prevent the straw from being carried outward through the blast aperture 12, I provide a suitable number of parallel inclined straw deflecting fingers 20 which extend across the blast aperture as best illus-

trated in Fig. 2, said fingers being connected by preference to the intermediate section 8 of the hood. These fingers form a comb-like element which has the effect of deflecting the straw and directing the same out through the discharge mouth of the hood, while permitting the air blast to pass outward through the aperture 12.

22 designates a pair of hood extending springs each of which has one end connected to the inner section 7 of the hood and the opposite end connected to the outer hood section 9 adjacent to the mouth thereof. The springs 22 act to restore the hood to its extended position when the connection 17 is released.

The hood, as a whole, is adapted to be turned to either side by means of an operating connection 23, extending lengthwise of the stacker chute to a point within reach of the attendant on the ground, said connection passing around pulleys 24 on the upper side of the collar 3 and extending thence around said collar to which the connection is fixedly attached at the point 25. By pulling on one or the other branch of the operating connection 23, the collar 3 together with the hood carried thereby may be turned to the right or to the left for delivering the straw accordingly.

By working the shutter above described, such portion of the blast may be allowed to escape through the blast aperture as may be necessary to relieve the top of the stack from the excessive blast above referred to. In this way, the straw and other like material may be deposited properly and easily upon the stack without danger of boring into the top of the stack and thereby leaving a cavity

or depression adapted to hold water very much to the detriment and keeping qualities of the straw stack. It will also be noted that the blast aperture is practically in direct line with the discharge end of the stacker chute when the hood is in its curved or extended position so that the action of the blast on the straw may be entirely relieved and the straw and other material may be allowed to discharge easily and lightly from the mouth of the hood.

I claim:—

1. In a pneumatic stacker, a downwardly curved hood at the discharge end of the stacker chute comprising overlapping pivotally connected sections one of said pivoted sections being formed with a blast outlet aperture, a manually-operated shutter controlling said aperture, and straw deflecting fingers extending across said aperture and carried by one of the pivoted sections of the hood.

2. In a pneumatic stacker, a downwardly curved hood at the discharge end of the stacker chute comprising overlapping pivotally connected sections one of said pivoted sections being formed with a blast outlet aperture, a shutter for said aperture carried by one of the pivoted sections, means carried by one of said pivoted sections for deflecting the straw while permitting the blast to pass through said aperture, and manually-operated means for folding the hood.

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

GEORGE H. BATHRICK.

Witnesses:

CHARLES E. LYMAN,

HARRY D. POWERS.