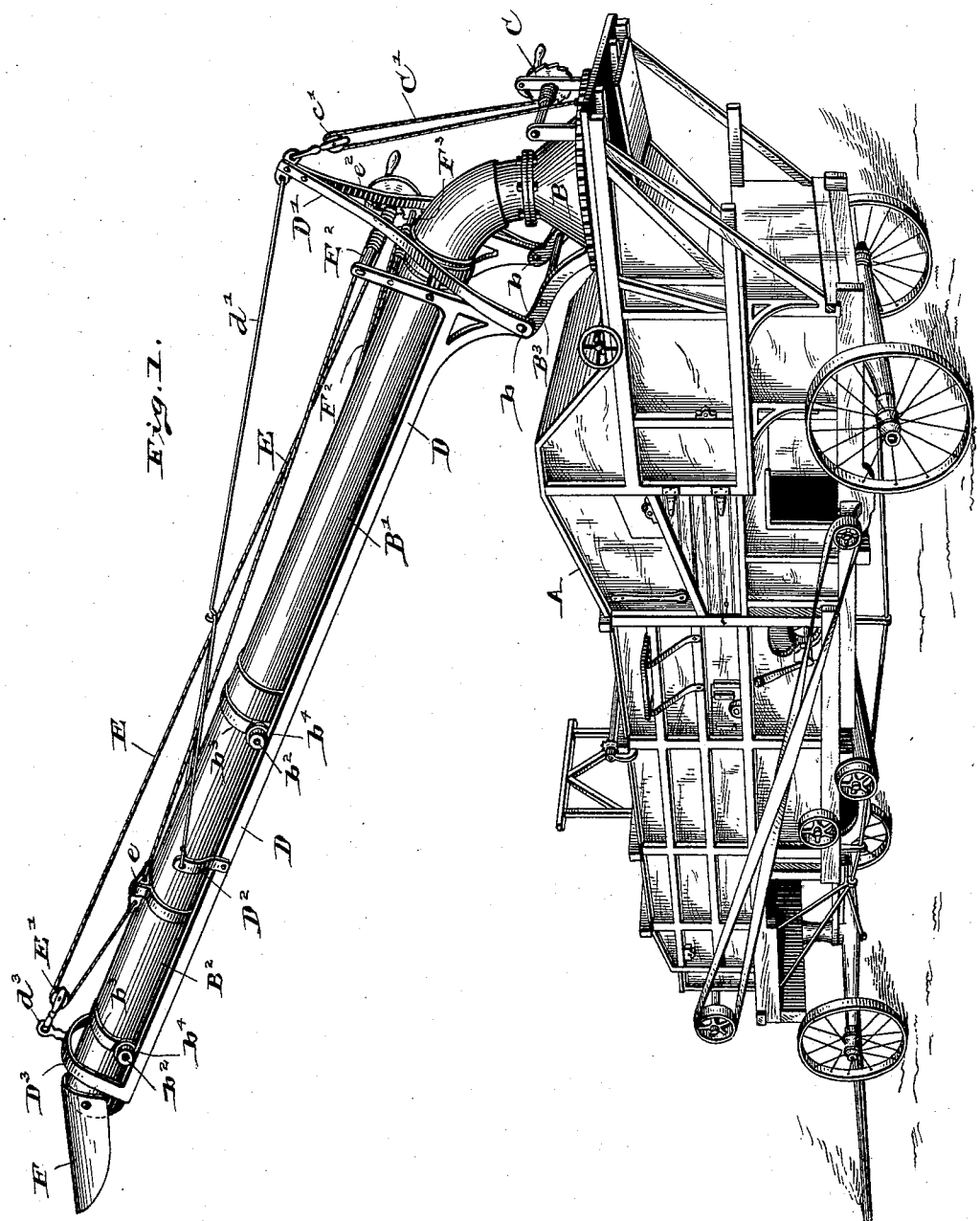
(No Model.) 2 Sheets—Sheet 1.

F. STANLEY.

PNEUMATIC STRAW STACKER.

No. 589,146. Patented Aug. 31, 1897.

Fig. 1.



WITNESSES:

H. B. Healy.

J. A. Walsh.

INVENTOR

Frank Stanley.

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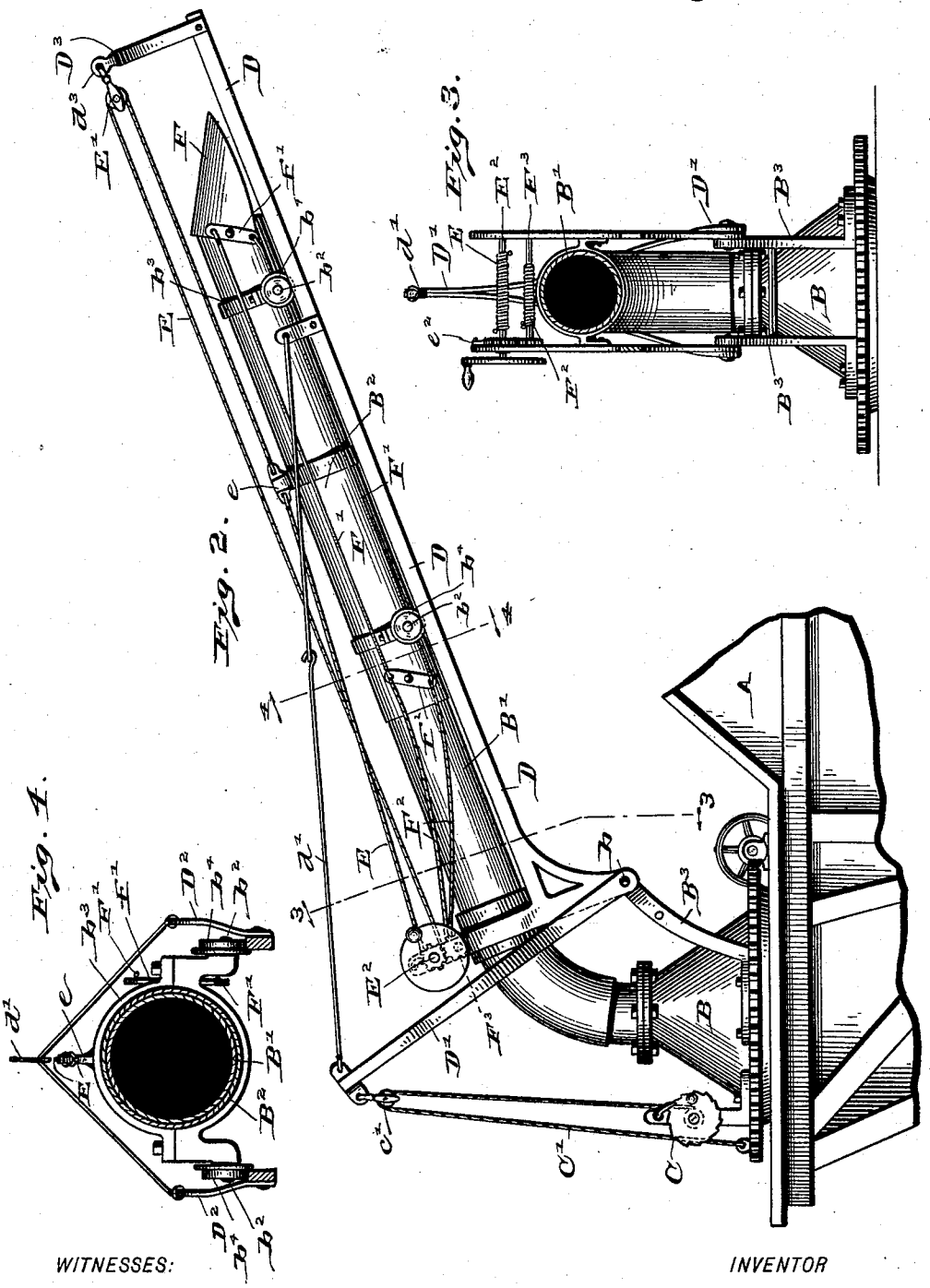


Fig. 2.

Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

FRANK STANLEY, OF LIBERTY, INDIANA.

PNEUMATIC STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 589,146, dated August 31, 1897.

Application filed October 16, 1894. Serial No. 526,074. (No model.)

To all whom it may concern:

Be it known that I, FRANK STANLEY, a citizen of the United States, residing at Liberty township, in the county of Henry and State of Indiana, have invented certain new and useful Improvements in Pneumatic Straw-Stackers, of which the following is a specification.

My said invention relates to that variety of pneumatic straw-stackers in which the straw-conveying trunk or chute is formed of two or more sections telescopically arranged; and it consists in certain improvements thereon, as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, which are made a part hereof and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a threshing-machine provided with a pneumatic straw-stacker embodying my said invention; Fig. 2, a side elevation of such a stacker from the opposite side; and Figs. 3 and 4, transverse sectional views, on an enlarged scale, as seen from the dotted lines 3 3 and 4 4, respectively, in Fig. 2.

In said drawings the portions marked A represent the threshing-machine or separator; B, the "stump" of the straw-stacker, and B' B^2 the sections of the telescopic trunk or chute thereof; C, a windlass whereby the stacker is raised and lowered; D, a frame extending out from the stump and forming a railway or track on which the adjustable section or sections of the trunk or chute can be moved back and forth; E, a rope by which such movement is effected, and F a hood on the outer end of the trunk or chute.

The threshing-machine or separator A is or may be of any ordinary or desired construction, being shown merely for purposes of illustration.

The straw-stacker proper has as its main parts the stump B and the sections B' and B^2. The section B' is united to the stump B in any desired manner capable of permitting the raising and lowering movement. A telescoping gooseneck connection is shown with a hinge-joint having its pivots *b* at the point from which its curve is struck. The section B^2 is provided with axles b^2, to which it is secured by clamp bars or caps b^3, and upon the ends of the axles are track-wheels b^4, which run upon the track edges of the frame D. The telescoping or movable section is thus strongly supported while permitted a free movement back and forth. The outer end of the section B' enters the lower end of the section B^2. Two sections only are shown, and these will usually be sufficient, but obviously three or more may be used, if desired.

The windlass C is mounted on the stump B and is provided with a rope C', which passes over a sheave *c'*, attached to the standard D' on the frame carrying the chute, and said standard being suitably connected to said chute structure the same is raised or lowered by winding or unwinding the rope from said windlass.

The frame D is mounted at its inner end on arms B^3, carried by the stump B by means of the pivots or pivot-rods *b*, which, as before stated, are at the point from which the gooseneck curve is struck, and the side bars of said frame extend out alongside the trunk or chute to a point as far as the extreme outer end thereof when the same is in its most extended position. This frame is so constructed as to form a track on which the telescopic sections of the trunk or chute may be mounted and moved back and forth. At the rear end is a standard D', connected thereto, by which the structure is raised and lowered through the medium of the windlass C, as already explained. This standard is connected to the frame by a stay wire or rope *d'*, which runs forward to arms D^2, extending up from the frame at a point near enough to its upper end to give it a good support. These arms, as best shown in Fig. 4, are flared outwardly, so as to permit the passage of the wheels b^4. At the extreme outer end of this frame an arch-bar D^3 is provided, and upon the upper side of this is an eye d^3, to which a sheave is connected for purposes which will be presently explained.

The rope E is connected to the telescopic connection B^2 by means of a suitable attaching-clamp *e* and extends in one direction to and passes around a sheave E', connected to the eye d^3, and at the other end of the structure it passes around the windlass E^2. By turning said windlass the rope E is driven in one direction or the other, and the telescoping section is thus moved to such other point

as may be desired. To prevent the movable section of the chute from descending, especially when at a considerable elevation, a ratchet e^2 may be provided.

The hood F is pivoted on the outer end of the section B^2. As said section is movable, an adjustable means of operating said hood is desirable. A cross-arm f' is secured thereto, and another cross-arm f^2 is secured at the lower end of the section B^2. The distance between these two arms is constant, and the parallel wires or ropes F' connect said arms and move uniformly whenever movement is necessary. It is necessary, however, that the operation of the hood should be from the extreme lower end, and the distance from the arm f^2 to the lower end is of course variable. Ropes F^2 are therefore run from the opposite ends of this arm f^2 to the lower end and around a windlass F^3; but the ropes being carried to the same side of the windlass-spool and attached there in such a manner that they can be run out sufficiently to permit the extreme extension of the chute and are wound up as the chute is shortened, so that only the ordinary amount of slack is maintained at all times. In order that these ropes shall move uniformly, the windlass F^3 is driven from the windlass E^2 by spur-gears thereon, as shown.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a pneumatic straw-stacker, of the stump (including the movable portion of the turn-table), having arms B^3 on one side, with pivots b at their ends, and a windlass C on the opposite side, the tubular portion of said stump being curved in the form of a sector of a circle struck from said pivots; a trunk or chute composed of a plurality of telescoping sections, the lower end of the inner section being correspondingly curved and fitting over the curved portion of the stump; a standard D', mounted on the pivots b, and rigidly attached to the lower portion of the telescoping section; a track-frame D, also mounted on said pivots; suitable supports connected to the movable or telescoping portion of the trunk or chute and resting on the tracks of said frame; and suitable ropes, sheaves and winding-drums for operating the stacker, all substantially as shown and described.

2. The combination, in a pneumatic stacker, of the stump, the telescoping trunk or chute connected to said stump, a track on which the telescoping part travels, means for operating said telescoping part, a hood mounted on the outer end of the telescoping part, cross-bars f' and f^2, one of which is mounted on the hood and the other on the lower end of the upper telescoping part, ropes or wires connecting said bars, and ropes running from the ends of the bar f^2 to a windlass and wound upon the same side thereof, whereby the slack in said ropes may be taken up as the telescoping part is moved inwardly and let out as it is moved outwardly, and the point from which the hood may be operated maintained in one place, substantially as set forth.

3. In a pneumatic straw-stacker, the combination with the stump and a chute part, non-movable with respect to the part on which it is mounted, of a telescoping chute part provided with axles b^2, clamp bars or caps b^3, and wheels b^4 on the ends of the axles, a frame D forming a track for said wheels, and appropriate mechanism for driving the telescoping part back and forth, substantially as set forth.

In witness whereof I have hereunto set my hand and seal at New Castle, Indiana, this 10th day of October, A. D. 1894.

FRANK STANLEY. [L. S.]

Witnesses:

PERRY FRAIZER,

ENOCH A. NATION.

Correction in Letters Patent No. 589,146.

It is hereby certified that Letters Patent No. 589,146, granted August 31, 1897, upon the application of Frank Stanley, of Liberty, Indiana, for an improvement in "Pneumatic Straw-Stackers," were erroneously issued to said Stanley as owner of said invention; whereas said Letters Patent should have been issued to *The Indiana Manufacturing Company, of Indianapolis, Indiana*, said company being owner of the entire interest, as shown by the record of assignment in this office; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 21st day of September, A. D. 1897.

[SEAL.]

WEBSTER DAVIS,
Assistant Secretary of the Interior.

Countersigned:

BENJ. BUTTERWORTH,
Commissioner of Patents.