

No. 650,033.

Patented May 22, 1900.

G. BEYL.

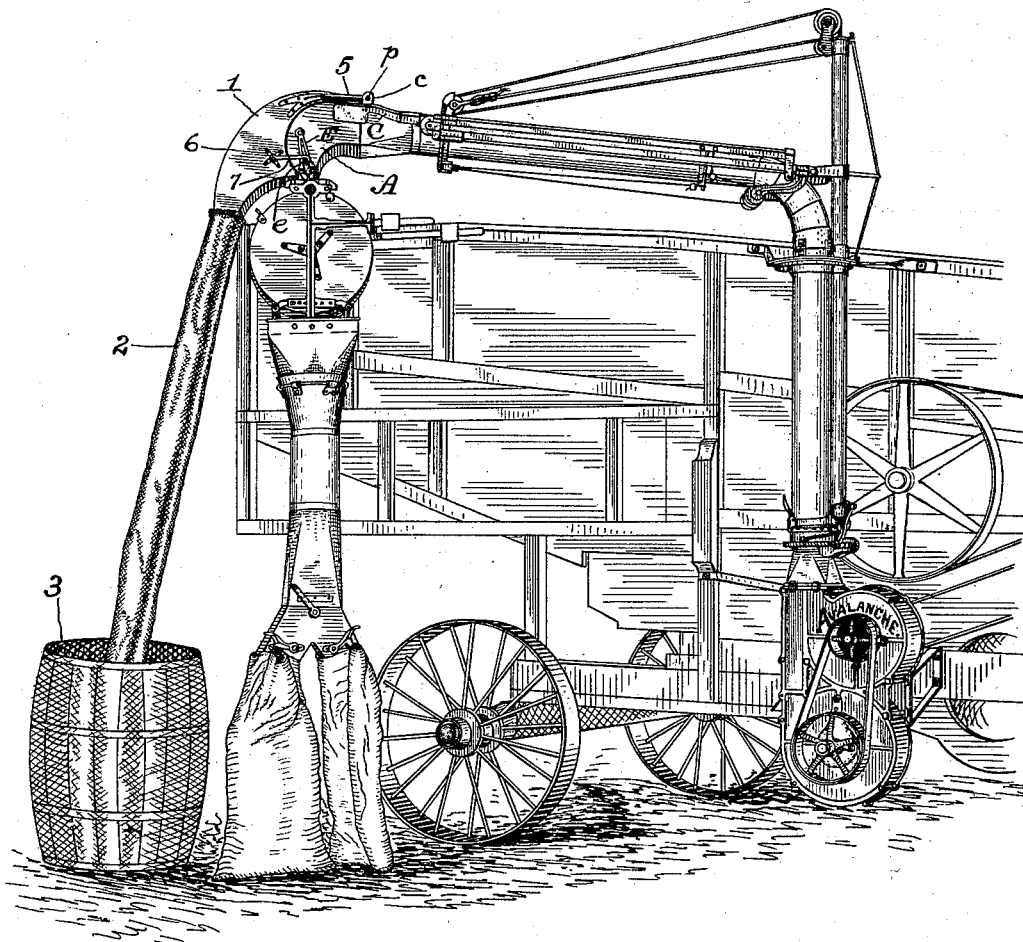
DUST COLLECTING ATTACHMENT FOR PNEUMATIC ELEVATORS.

(Application filed Oct. 30, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



WITNESSES:

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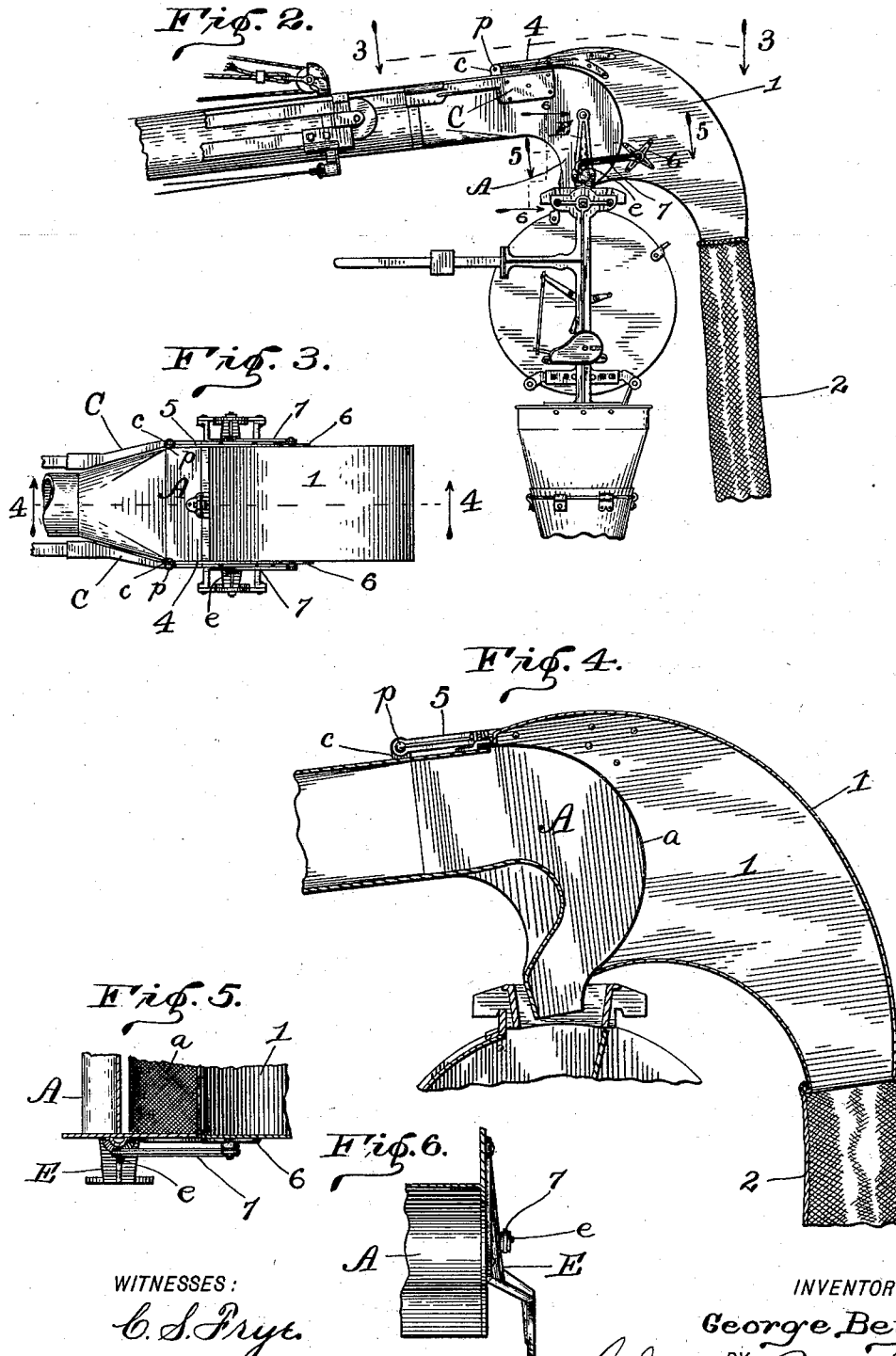
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DUST COLLECTING ATTACHMENT FOR PNEUMATIC ELEVATORS.

(Application filed Oct. 30, 1899.)

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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

GEORGE BEYL, OF OSBORN, OHIO, ASSIGNOR TO THE PNEUMATIC ELEVATOR
AND WEIGHER COMPANY, OF INDIANAPOLIS, INDIANA.

DUST-COLLECTING ATTACHMENT FOR PNEUMATIC ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 650,033, dated May 22, 1900.

Application filed October 30, 1899. Serial No. 735,284. (No model.)

To all whom it may concern:

Be it known that I, GEORGE BEYL, a citizen of the United States, residing at Osborn, in the county of Greene and State of Ohio, have
5 invented certain new and useful Improvements in Dust-Collecting Attachments for Pneumatic Elevators, of which the following is a specification.

In that class of apparatus used in connection with threshing-machines or separators known as "pneumatic elevators," in which the grain is elevated by a blast of air, much dust, dirt, weed-seed, &c., is blown out of the grain through the screen on the separating-head. This, while advantageous in that it
15 improves the quality of the grain, is disagreeable to the operators and (in barn-threshing especially) is sometimes detrimental to the surrounding objects—as, for example, hay in
20 a mow.

It is the object of my invention to provide a device by which the dust, &c., blown out of the separating-head may be gathered and discharged into a receptacle instead of being
25 permitted to fly about in the air.

An apparatus embodying said invention will now be fully described in connection with a pneumatic elevator of the character in question—such, for example, as is fully shown
30 and described in Letters Patent of the United States No. 623,109, issued upon the application of James B. Schuman, April 11, 1899.

Referring to the accompanying drawings, which are made a part hereof and on which
35 similar reference characters indicate similar parts, Figure 1 is a perspective view of a pneumatic elevator and weigher with one of my dust-collecting attachments in position for use thereon; Fig. 2, a side elevation of the
40 separating-head of the elevator and the upper portion of my dust-collecting attachment and immediately-adjacent parts on a somewhat-enlarged scale; Fig. 3, a central sectional view, on a still further enlarged scale, of substantially the same parts as shown in Fig. 2;
45 Fig. 4, a top or plan view of the parts shown in Fig. 2; Fig. 5, a detail sectional view, on the same scale as in Fig. 4, of certain parts as seen from the dotted line 5 5 in Fig. 2; and Fig. 6,

a detail sectional view as seen from the dotted line 6 6 in Fig. 2.

As above stated, the pneumatic elevator shown is that which is fully shown and described in the Schuman patent, No. 623,109, and as it forms no part of my present invention will not be further described herein, except incidentally in describing the invention.

The dust-collecting attachment which forms the subject of this application consists mainly of a hood-like head 1, the inner side of which
60 is open and is fitted onto the separating-head A of the elevator in a manner to substantially completely inclose the screen α of which the outer wall of said separating-head is composed. The walls of said attachment are composed
65 of sheet metal and are imperforate and extend out a suitable distance beyond the separating-head, where they terminate and where the attachment has an open end. To this
70 open end a flexible tube 2 is connected, and this tube may be arranged to lead to wherever it is desired to discharge the dust and dirt. I have shown it as leading into a barrel 3. The part 1 is united to the separating-head by means of arms 4 and 5, which are
75 hinged to ears c on the frame parts C, which carry the separating-head of the elevator, it being thus practicable to swing the dust-collecting attachment back on the hinges so formed whenever it is desired to uncover the
80 screen of the separating-head. In order to hold the dust-collecting attachment securely in place, I have provided pivot-bearing plates 6 on the sides of the part 1, and on these are
85 hasps 7, which are adapted to hook over suitable studs or projections carried by the separating-head, such as the projections e on the ears or hangers E thereon.

In operation the dust-collecting attachment is secured to the separating-head of the elevator by placing the hinge-pintle p in the ears c and arms 4 and 5 and then hooking the hasps 7 over the studs or projections e , after which the flexible tube 2 is carried in
90 any direction and to any distance desired. I have found by practical use that this attachment gathers the dust and dirt completely and entirely obviates the disagreeable fea-

tures incident to the use of such a machine without such an attachment.

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

1. The combination, with a pneumatic elevator having a separating-head one side of which is composed of perforated or reticulated material through which the air, dust and dirt are discharged, of a dust-collecting attachment consisting essentially of a hollow structure fitted to said separating-head and having an open side which covers the perforated portion of said head and developing thence into an inclosed tube leading to the point of discharge.

2. The combination, with a pneumatic elevator having a separating-head, of the hollow hood or headpiece of a dust-collecting attachment adapted to fit over said separating-head, arms thereon hinged to suitable ears attached to said separating-head, suitable fastening devices for holding said attachment against said separating-head, and a tube leading from said structure to the point where it is desired to discharge the dust and dirt, substantially as set forth.

3. The combination of a pneumatic elevator having a separating-head, the outer side of which is composed of perforated or reticulated material through which the air, dust and dirt are discharged, and which is provided with a grain-delivering mouth; a grain-receiving receptacle positioned below said mouth; a dust-collecting attachment, consisting of a hollow structure fitted to the separating-head and having an open side which covers the perforated portion of said head, and an inclosed portion projecting out therefrom and free from the grain-receptacle and developing into an inclosed tube leading to the point of discharge; and said inclosed tube.

4. The combination, with a pneumatic elevator having a separating-head and a grain-weighing receptacle suspended thereto, the outer side of said separating-head being com-

posed of perforated or reticulated material, of a dust-collecting attachment consisting of a hollow structure fitted to said separating-head and having imperforate walls leading thence out over and free from the grain-receiving weighing attachment, and a flexible tube running thence to the point of discharge.

5. The combination, with a pneumatic elevator having a separating-head the outer side of which is composed of perforated or reticulated material through which the air, dust and dirt are discharged and which is provided with a grain-delivering mouth, of a grain-receiving receptacle positioned below said mouth, and a dust-collecting attachment consisting of a hollow structure having an open side next the perforated or reticulated side of said separating-head and fitted over said separating-head, said structure having imperforate walls which extend from said separating-head outwardly and free from the grain-receptacle and developing into an inclosed tube leading to the point of discharge, said dust-collecting attachment being removably attached to said separating-head.

6. The combination, with a pneumatic elevator provided with a separating-head having a downwardly-curved end wall of perforated or reticulated material through which the air and dust may escape, of a dust-collecting attachment consisting of a hollow structure hinged at its upper edge to said separating-head at a point above the perforated wall and having an open side which covers said perforated wall and developing thence downward into an inclosed tube, the said structure being provided with means for securing it in working position and being capable of being thrown back when out of use.

In witness whereof I have hereunto set my hand and seal, at Osborn, Ohio, this 25th day of October, A. D. 1899.

GEORGE BEYL. [L. S.]

Witnesses:

J. E. KLINE,

W. R. MORGAN.