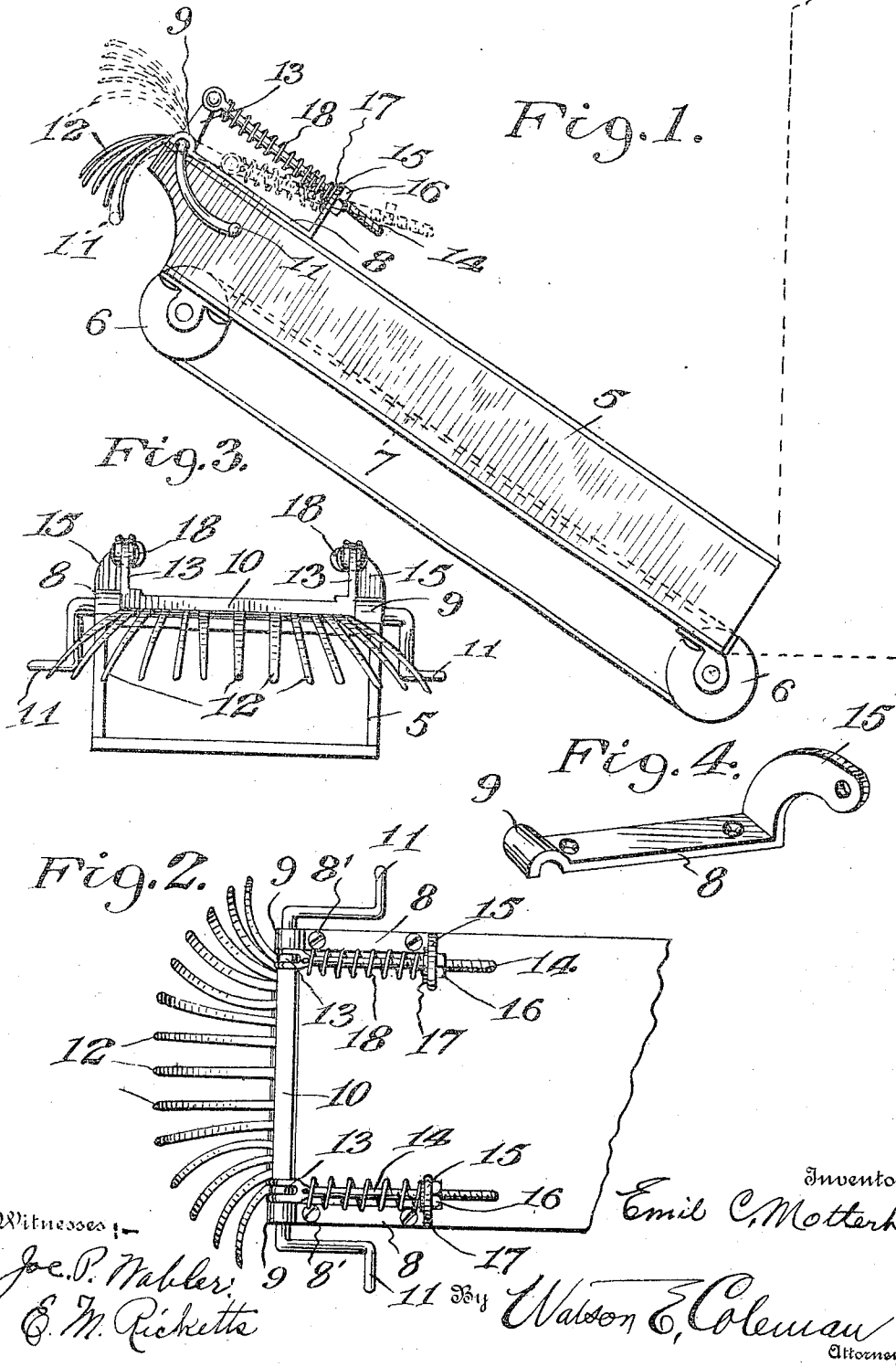


E. C. MOTTERT.
ELEVATOR HOOD FOR HARVESTERS.
APPLICATION FILED NOV. 6, 1909.

957,437.

Patented May 10, 1910.



UNITED STATES PATENT OFFICE.

EMIL C. MOTTERT, OF TENMILE, LOUISIANA.

ELEVATOR-HOOD FOR HARVESTERS.

957,437.

Specification of Letters Patent.

Patented May 10, 1910.

Application filed November 6, 1909. Serial No. 526,596.

To all whom it may concern:

Be it known that I, EMIL C. MOTTERT, a citizen of the United States, residing at Tenmile, in the parish of Calcasieu and State of Louisiana, have invented certain new and useful Improvements in Elevator-Hoods for Harvesters, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to certain new and useful improvements in elevator hoods for harvesters, and is more particularly adapted for use in connection with that class of harvesters commonly known as "headers".

15 The object of the present invention resides in the provision of an adjustable hood which is adapted to be positioned upon the outer end of the inclined elevator which is carried by the harvester through which a flexible conveyer moves, carrying the grain to the upper end of the elevator and discharging it into a suitable transporting vehicle, the hood preventing the flying of the grain from the mouth of the elevator during windy weather.

25 Another object is to provide a grain elevator hood which may be instantly adjusted and held in its operative and inoperative position.

30 A further object is to provide a very simple device of this character, the use of canvas, commonly employed, being entirely eliminated, the construction of the hood permitting of the insertion of the tines of a pitchfork to agitate the grain heads should they become clogged in the upper end of the elevator, it being unnecessary to move the hood from its operative position.

40 With these and other objects in view, the invention consists of the novel construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawing, in which—

45 Figure 1 is a side elevation showing the hood attached to the grain elevator in operative position, its inoperative position being illustrated in dotted lines; Fig. 2 is a top plan view; Fig. 3 is an end elevation; and 50 Fig. 4 is a detail perspective view of one of the bearing members.

Referring to the drawing 5 indicates the grain elevator which is secured in any approved manner upon the rear end of the harvester. This elevator comprises an inclined frame in the opposite ends of which

transverse rollers 6 are rotatably mounted upon which an endless conveying belt 7 is arranged. Power is applied to the lower roller 6 through a band wheel having suitable connections to the power supply carried by the harvester. In the operation of the machine, the grain heads are deposited upon the conveying belt 7 and carried up the inclined elevator frame, the upper end of which is positioned above the transporting vehicle into which the grain is deposited.

Numerous devices have been devised for preventing the flying of the grain heads from the upper open end of the elevator. In some cases a canvas hood was positioned over the end of the elevator, and while it prevented the flying of the grain, it had the disadvantage that should the upper end of the elevator become filled with grain, in order to dislodge the same it was necessary to elevate the hood or attempt to insert the pitchfork or other implement beneath the same and into the end of the elevator. The result of such procedure was accompanied by considerable injury to the canvas hood which soon became torn in many places and inefficient for further use. Metallic hoods have also been provided, but they have been generally of such complicated construction as to render their use prohibited.

In order to obviate the above mentioned defects I have provided an elevator hood which is entirely constructed of metal and comprises the bearing members 8 which are positioned and secured at either side of the upper end of the elevator frame. The outer ends of these members are formed with the bearing portions 9 to receive the opposite ends of a transversely positioned rock shaft 10. This shaft is square in cross section between the bearing members, the outer end portions thereof which are disposed beneath the bearings 9 being round. The ends of this shaft are formed with the crank handles 11 by means of which the shaft may be turned in the bearings. Preferably formed integral with the shaft 9 there are a plurality of outwardly and downwardly curved tines 12 which, when the device is in operative position, depend in front of the open end of the elevator from which the grain is ejected by the movable belt 7. As shown in Fig. 2 these tines are so disposed as to extend entirely across the end of the elevator. Also formed upon the shaft 10 are the arms

13 to the upper ends of which one end of the longitudinally extending rods 14 are pivotally connected. The rear ends of the bearing members 8 are upwardly and inwardly projected to provide the arms 15 through which the ends of the rods 14 movably extend. The end portions of these rods are threaded to receive the stop nuts 16 which limit their forward longitudinal movement in the arms. Upon the other side of the arms 15 the washers 17 are arranged and provide a bearing for one end of a coiled spring 18 disposed upon the rod 14 between the arms and the outer pivoted ends of the rods. These springs normally tend to project the rods 14 outwardly and dispose the hood in operative position over the mouth of the elevator. However, when the crank 11 is turned and the tines 12 thrown upwardly into the position shown in dotted lines in Fig. 1, the pivots connecting the arms 13 and rods 14 will be disposed below a connecting line drawn between the bearings and the upper ends of the supporting plates 15 through which the rods extend, thus disposing said arms and rods at a slight angle to each other, the springs 18 being placed under compression. It will require but a slight upward movement of the cranks 11 to move the arms 13 out of alinement with the rods 14 and allow the spring 18 to continue the longitudinal movement of the rods 14 and operatively position the tines 12 over the elevator. The bearing members 8 may be secured upon the frame by the screws 8' or other analogous fastening devices.

The utility of a device of this character will be apparent. During windy weather which is quite frequent during harvesting time, much grain is lost by being blown from the upper end of the elevator as it is deposited into a suitable conveyance. By the use of my improved hood, the tines 12 which are closely arranged may be instantly disposed over the ends of the elevator and prevent the scattering of the grain heads. Should the upper end of the elevator become filled with the grain so as to prevent its free flow therefrom, a pitchfork or other suitable implement may be inserted between the tines 12 and the grain dislodged, without altering the position of the hood or stopping the operation of the mechanism. When it is not desired to use the hood, the operator may manipulate the crank handle 11 to position the same above the elevator where it will be disposed out of the way and provide no hindrance or inconvenience when the conveying belt and interior of the frame is being cleaned.

From the foregoing it will be seen that I have provided a hood for harvester elevators which, while extremely simple in its construction and operation, is highly efficient in its use and admirably adapted for

the purposes in view. It will be noted that any desired number of the tines 12 may be employed in the manufacture of the device, and various other minor modifications may be resorted to without materially departing from the essential features or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed is:

1. An elevator hood for harvesters comprising the spaced bearing members secured to the upper end of the elevator, a rock shaft mounted in the outer ends of said members, the ends of said shaft being laterally extended to form crank handles, a plurality of outwardly and downwardly curved tines integrally formed with said shaft, said tines being normally positioned over the end of the elevator, longitudinal rods movably supported in the rear of said bearing members, said rods being pivotally connected at their forward ends to said shaft, means carried by said rods normally adapted to retain the tines in operative position, and means for limiting the forward longitudinal movement of said rods.

2. An elevator hood for harvesters comprising spaced bearing members secured to the upper end of the elevator, a rock shaft mounted in the outer ends of said members, said shaft being rectangular in cross section, the ends of said shaft being laterally extended to provide crank handles, a plurality of tines integrally formed with said shaft and extending outwardly and forwardly therefrom, said tines extending entirely across the open end of the elevator, arms carried by said shaft, longitudinal rods mounted in the rear end of said bearings, the forward ends of said rods being pivotally connected to said arms, a spring disposed upon each of said rods between the bearing members and said arms, said springs normally acting to maintain the tines in operative position, said shaft being adapted to be rotated to dispose the rods and arms in longitudinal alinement and elevate the tines, such movement being adapted to place the springs under compression, and stops carried by the rods to limit their forward longitudinal movement.

3. An elevator hood for harvesters comprising bearing members secured to opposite sides of the upper end of the elevator, a rock shaft mounted in bearings in the outer ends of said members, tines integrally formed with said rock shaft and depending in front of the elevator, operating handles on the opposite ends of said shaft, an arm integrally formed with the shaft adjacent to each of the bearings, upwardly and inwardly extending bearing arms on the rear ends of said bearing members, a rod longitudinally movable through each of said arms and pivotally connected at one end to the shaft

arms, a spiral spring disposed about each
of said rods between said arms adapted to
maintain the tines in operative position, a
stop nut on each of said rods adapted to
5 limit the forward movement of the rods,
said rock shaft being adapted to be rotated
to move the arms into longitudinal alinement
with the rods and the tines to an operative
position, said springs being placed under

compression and adapted to return the tines 10
to operative position when the arms and rods
are moved out of longitudinal alinement.

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

EMIL C. MOTTERT.

Witnesses:

CHAS. DODD,

OLIVER CHILDRESS.