

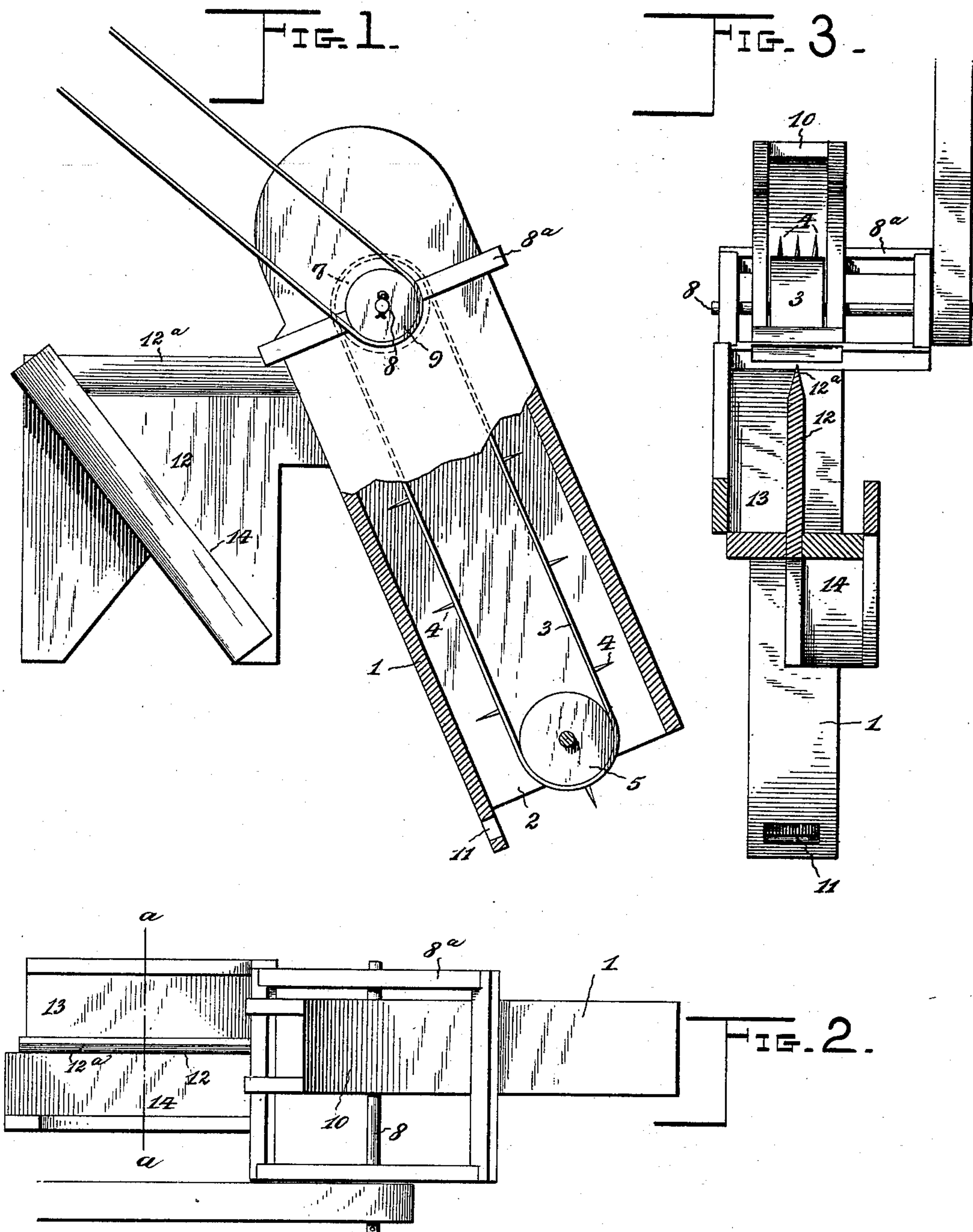
No. 628,485.

Patented July 11, 1899.

C. MCINTOSH.
COTTON ELEVATOR.

(Application filed Mar. 14, 1898.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

CRAIG MCINTOSH, OF MAIDEN, NORTH CAROLINA.

COTTON-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 628,485, dated July 11, 1899.

Application filed March 14, 1898. Serial No. 673,811. (No model.)

To all whom it may concern:

Be it known that I, CRAIG MCINTOSH, a citizen of the United States, residing at Maiden, in the county of Lincoln and State of North Carolina, have invented a new and useful Cotton-Elevator, of which the following is a specification.

This invention relates to improvements in cotton-elevators designed particularly for use in conveying cotton from a loaded wagon or analogous vehicle directly to the gins; and the object that I have in view is to provide a system by which the cotton may be conveyed to two gins from a single elevator.

With these ends in view my invention consists in the novel combination of elements and construction and arrangement of parts, which will be hereinafter fully described and claimed.

To enable others to understand my invention, I have illustrated the preferred embodiment thereof in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a sectional elevation of a cotton-elevator constructed in accordance with this invention. Fig. 2 is a plan view of the elevator shown by Fig. 1. Fig. 3 is a transverse sectional elevation on the plane indicated by the dotted line *a a* of Fig. 2.

Like numerals of reference denote like and corresponding parts in each of the several figures of the drawings.

In carrying my invention into practice I provide an elevator-casing 1, which is of any suitable construction preferred by those skilled in the art. This elevator-casing is attached rigidly to the outside of a building in a position thereon for a loaded wagon to be driven below the lower receiving end of said elevator-casing, and in the preferred embodiment of the invention I arrange the casing 1 and the elevator therein in an inclined position, substantially as shown by Fig. 1, although this inclination of the elevator is not essential. The elevator-casing is open at its lower end, as indicated at 2, and at its upper end said casing is provided with a deflector 10, which overhangs the delivery end of the elevator to deflect the cotton into the conveying-chutes. Within the elevator-casing is arranged the endless elevator 3. In one embodiment of the invention this elevator con-

sists of an endless belt or chain provided with the flights or teeth 4 of a suitable construction, and in the lower end of the casing 1 is journaled an idler-roller 5, around which passes the foot of the endless elevator 3. To the upper end of the elevator-casing 1 is attached a surrounding frame 8^a of a construction suitable to support the driving-shaft 8, the latter being journaled in suitable bearings provided in said frame 8^a. The driving-shaft passes transversely across the elevator-casing, and to it is attached the driving-roller 7, (shown by dotted lines in Fig. 1,) around which passes the endless belt or chain forming a part of the elevator, and to one end of this shaft 8 is attached the pulley 9, adapted to be driven by a belt from a suitable line of shafting or other source of power.

By arranging the casing 1 in the inclined position the ascending side of the endless elevator is caused to travel close to the bottom of said casing, so that any refuse in the cotton will be precipitated upon the bottom of said casing 1, and to enable this refuse to be discharged from the casing without passing back into the wagon from which the cotton is taken I provide the bottom of said casing with an exit-opening 11, which is formed at a point near the lower receiving end 2 of the casing 1. Any refuse—such as gravel, sticks, matches, &c.—in the cotton has a tendency to drop upon the bottom of the elevator-casing and to glide down the same to find its exit through the opening 11, and thus the refuse is prevented from being carried with the cotton into the gins to damage or injure the same.

12 designates the dividing-partition, which is arranged outside of the elevator-casing at a point adjacent to the delivery end of the elevator. This dividing-partition occupies a fixed relation to the elevator, and it is attached directly to the casing 1 or may be supported in a fixed position in any other suitable way. The dividing-partition extends at an angle to the longitudinal axis of the elevator-casing, and it occupies a position in the medial line of said casing and the elevator therein. The upper edge of the dividing-partition is beveled to a sharpened edge adjacent to the delivery end of the elevator. On opposite sides of the dividing-partition are the delivery-chutes 13 14, which are ar-

ranged to receive the cotton directly from the delivery end of the elevator, and these chutes 13 14 are inclined in opposite directions. The delivery-chute 13 on one side of the dividing-partition has its upper receiving end adjacent to the delivery-mouth of the casing, while the other chute 14 is inclined reversely to the chute 13 and lies in such relation to the dividing-partition 12 that it intercepts the cotton which falls on one side of the partition. These chutes are of any suitable length to lead from the elevator and dividing-partition to the cotton-gins, (not shown,) and, if desired, suitable conveyers may be combined with said delivery-chutes to convey the cotton to the gins in case the latter are situated remote from the elevator.

The elevator and its casing are of a length suitable to extend from the floor of the gin-house to a point adjacent to the ground for a loaded wagon to be driven beneath the lower receiving end of the elevator-casing. The elevator is driven by motion applied to the pulley 9 of the driving-shaft 8 and roller 7, and as the elevator travels its teeth or flights 4 catch into the cotton to convey the latter longitudinally through the casing 1. The cotton is discharged from the upper end of the elevator onto the sharpened edge 12^a of the dividing-partition. This partition divides the cotton into separate masses or batches, which gravitate upon the oppositely-inclined chutes 13 14, which convey the cotton directly to the gins.

To insure an even distribution of the cotton into the two chutes 13 and 14, the upper beveled edge of the stationary partition-board 12 is projected above the plane of both chutes, so as to receive directly thereon the mass of cotton which divides upon said edge and falls therefrom into the chutes. It will also be observed that the stationary partition-board 12 is disposed in a vertical plane longitudinally bisecting the elevator-casing and the elevator therein.

From the foregoing description, taken in connection with the drawings, it will be ob-

served that I have provided a simple construction of cotton-elevator by which the cotton may be taken directly from a loaded wagon and conveyed to the gins and that the parts are efficient and reliable in operation. The improved elevator may readily be attached to a building or other structure, and with the casing 1 thereof is combined all the operating parts necessary to the successful transportation or delivery of the cotton from the loaded wagon to the gins.

I am aware that changes in the form and proportion of parts and in the details of construction may be made by a skilled mechanic without departing from the spirit or sacrificing the advantages of my invention, and I therefore reserve the right to make such modifications as clearly fall within the scope of the invention.

Having thus described the invention, what I claim is—

In a cotton-elevator, or distributor, the combination of an upright elevator-casing provided at its upper end with a discharge-mouth for the elevated cotton, the elevator within the casing, a stationary vertically-disposed dividing-partition rigidly joined to the casing, and offset therefrom, and a pair of reversely-inclined open-top distributing-chutes arranged respectively upon opposite sides of the partition and partly formed thereby, said partition being provided with a horizontal double beveled upper edge projecting above the plane of both chutes and disposed in a vertical plane longitudinally bisecting the elevator-casing and adapted to receive thereon the mass of cotton which divides upon the double beveled edge and falls therefrom into the chutes, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CRAIG MCINTOSH.

Witnesses:

JOHN SIGMAN,
L. M. ALLEN.