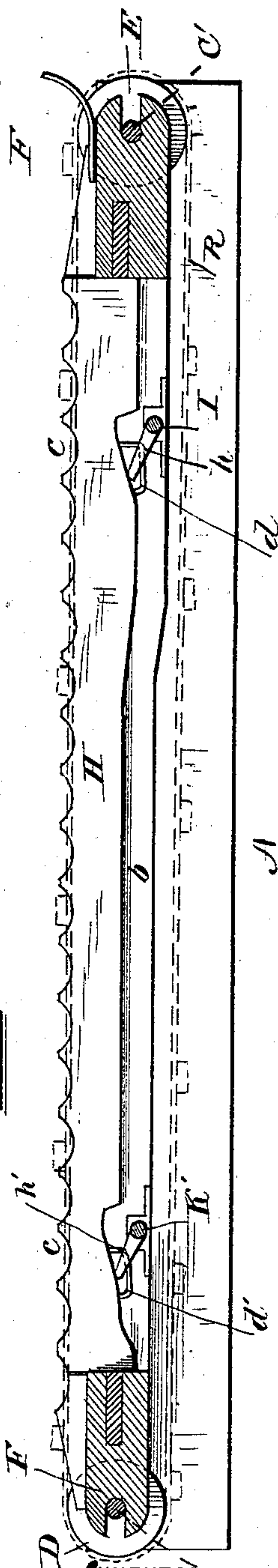
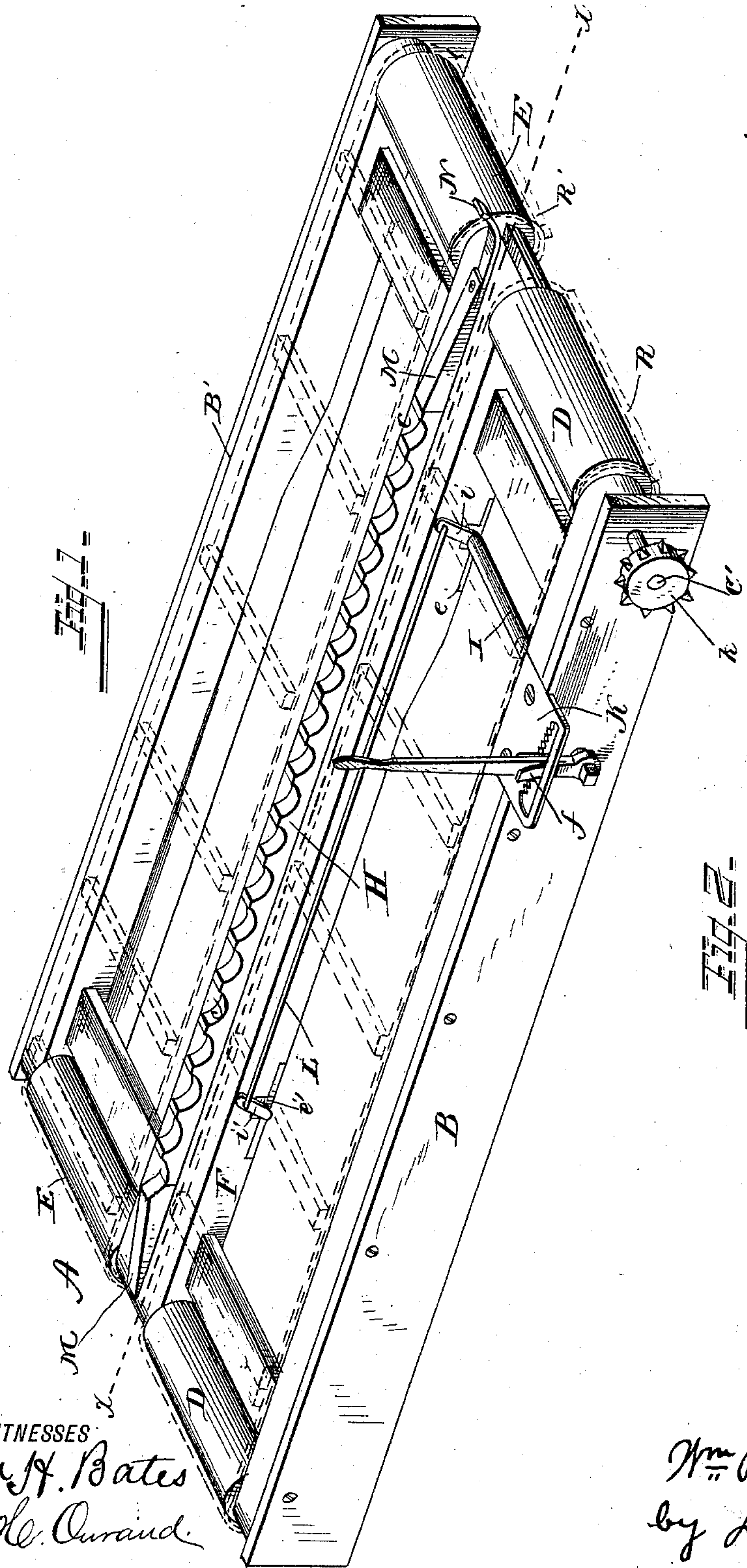


(No Model.)

W. R. STEINER.
GRAIN CARRIER PLATFORM.

No. 290,716.

Patented Dec. 25, 1883.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM R. STEINER, OF FREDERICK, MARYLAND.

GRAIN-CARRIER PLATFORM.

SPECIFICATION forming part of Letters Patent No. 290,716, dated December 25, 1883.

Application filed September 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. STEINER, a citizen of the United States, residing at Frederick, in the county of Frederick and State of Maryland, have invented certain new and useful Improvements in Grain-Carrier Platforms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in grain-platforms for harvesters and like machines; and it has for its main object to deliver at the inner end of the platform the cut grain in such a manner that both ends will be delivered at the same time.

In the ordinary grain-platforms on harvesters, the cut grain, in being fed to the binder or binding mechanism, often assumes an oblique position from several causes, principally on account of the butts of the grain striking against the stubbles, thereby delivering the grain in a bad condition for binding. My improvement is designed to obviate these difficulties, and to present the cut grain to the binder or binding mechanism with uniformity and in a good condition.

My improvement therefore consists in a plurality of independent endless belts actuated by suitable driving means, with a vertically-adjustable device interposed between and extending in the direction of the length of the independent belts, in combination with connected means for operating the adjustable device for the purpose of remedying defects in the feed and delivery of the cut grain upon the platform.

My invention further consists in the novel construction and arrangement of the parts, as will be hereinafter more fully set forth.

In the annexed drawings, which show one practical way to carry out the invention, Figure 1 is a perspective view of a grain-platform with two independent carrier-belts with my improvement applied; and Fig. 2 is a longitudinal view of the same, taken through the line X X of Fig. 1.

In the annexed figures, A represents a grain-platform composed, essentially, of the side

pieces, B B', the end shafts with rollers D E, and the centrally-arranged longitudinal rail or bar F, suitably supported at the ends by the shafts C C', or by means of cross-bars. This central bar is formed with a longitudinal slot, 55 *b*, the ends of which may be either vertical or inclined. Into this slot is fitted and adjusted loosely the longitudinal bar H, having its upper face corrugated or formed with depressions *c*, substantially as shown, and the lower edge 60 provided with two or more loops, *d*, preferably located near the ends, as shown in Fig. 2 of the drawings.

The letter I indicates a transverse shaft, suitably journaled to the side piece B and in 65 the bearings *e*, secured to the lower surface of the rail F, to secure a vibratory motion, for the purpose hereinafter stated. The outer end of this shaft I is provided with a lever or handle to be within reach of and controlled by the 70 driver of the machine, with a spring, *f*, to force the lever in contact or engagement with the teeth of the rack-bar K, as indicated in Fig. 1 of the drawings. The inner end of this shaft, at a point under the movable bar H, is formed 75 with a crank-arm, *h*, to form a connection with the loop *d*, on the under side of the said movable bar. This shaft is also formed or provided with a crank-arm, *i*, arranged outside of the rail F, as shown in Fig. 1 of the draw- 80 ings. Near the other or opposite end of the rail F is journaled in bearings *e'* the short shaft K', formed with a crank-arm, *h'*, attached to the loop *d'*, on the under side of the movable bar, and a crank-arm, *i'*. These mem- 85 bers (crank-arms) are constructed and arranged on the shaft substantially in the same manner as those on the shaft I. The crank-arms *i i'* of the shafts I and K' are united by the connecting-rod L, so that both shafts, on 90 being actuated through the lever and connecting-rod, will adjust both ends of the movable bar at the same time. The ends of the movable bar are provided with the inclined fenders or guards M, which in some cases may 95 be attached to the upper surface of the rail. The inner fender is preferably provided with a curved finger, N.

Passed over the rollers or drums D E are the independent grain-carrier belts R R', arranged 100

on opposite sides of the longitudinal rail F, as indicated by dotted lines. The shaft C' is provided with a sprocket-wheel, k, to receive a power sprocket-chain to drive the belts. The longitudinal rail, with its adjustable bar, need not be arranged centrally, since in some cases it can be arranged nearer either of the side pieces, to suit circumstances or the condition of the grain. By this construction and organization of parts, it will be observed that in case the feed of the cut grain upon the platform should not be regular or uniform, or that the grain should assume an oblique position on account of the butts of the grain^c striking against the stubbles or the standing grain, the driver will shift the lever, so that the movable bar will be elevated above the horizontal plane of the grain-carrier belts. This adjustment will cause the irregular or roughened upper surface of the movable bar to come in contact with the cut grain, and to retard the movement of the heads of the grain, so that the butt or other ends, moved or fed forward by an independent belt, will catch up and be delivered in a straight line with the grain-heads for the binder or binding mechanism. When the grain is being fed uniformly, the driver will then lower the movable disturbing bar. The frictional disturbance between the movable bar and the cut grain is regulated by increasing or decreasing the height of the adjustment, for, *e. g.*, if the feed of the grain is very bad the movable bar will be adjusted high, to remedy the difficulty and bring both ends of the grain on the same transverse line—that is to say, to secure the delivery of both ends of the grain at the same time. Again, if the feed of the grain is slightly imperfect, then the adjustment will be slight, so as to cause a slight frictional contact to remedy the defect, and when the defect is remedied in both examples the movable bar will be lowered, to allow the grain to pass freely onward.

I reserve the right to vary the construction and arrangement of parts without depart-

ing from the spirit of the invention; also, to employ the improvements in connection with grain-elevators used in connection with harvesters.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A grain-carrier platform formed or provided with a longitudinal slotted rail separating the platform into sections, and in which is arranged an adjustable bar, substantially as and for the purpose set forth.

2. A grain-carrier platform provided with a plurality of independent carrier-belts actuated by suitable driving means, and a vertically-adjustable device interposed between and extending in the direction of the belts, with means for operating the same, all combined and arranged for the purposes stated.

3. In a grain-carrier platform, the combination of independent carrier-belts actuated by suitable driving means, the longitudinal slotted rail, and the vertically-adjustable bar, and connected means for actuating the said adjustable bar, substantially as and for the purposes set forth.

4. The combination, with the carrier-frame provided with longitudinal slotted rail and the vertically-adjustable bar working within the same, of the end fenders or guards, substantially as and for the purpose set forth.

5. In a grain-carrier platform, the combination of the side pieces, the end shafts with rollers, the centrally-arranged longitudinal rail, the vertically-adjustable bar, the end guards or fenders, the transverse shafts connected to the under side of the adjustable bar, the connecting-rod, actuating-lever, and rack-bar, substantially as and for the purposes set forth.

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

WILLIAM R. STEINER.

Witnesses:

M. F. LEASE,
T. H. MYERS.