No. 619,983. Patented Feb. 21, 1899.

Z. McGONEGAL.

STRAW ELEVATOR.

(Application filed Apr. 16, 1898.)

(No Model.)

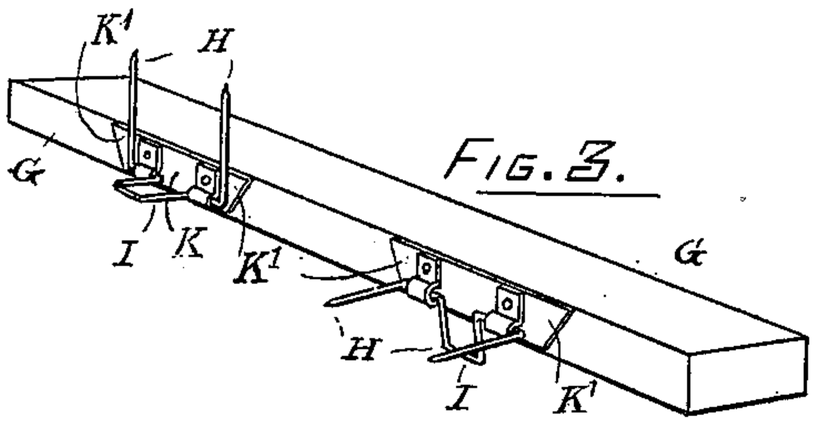


FIG. 3.

FIG. 1.

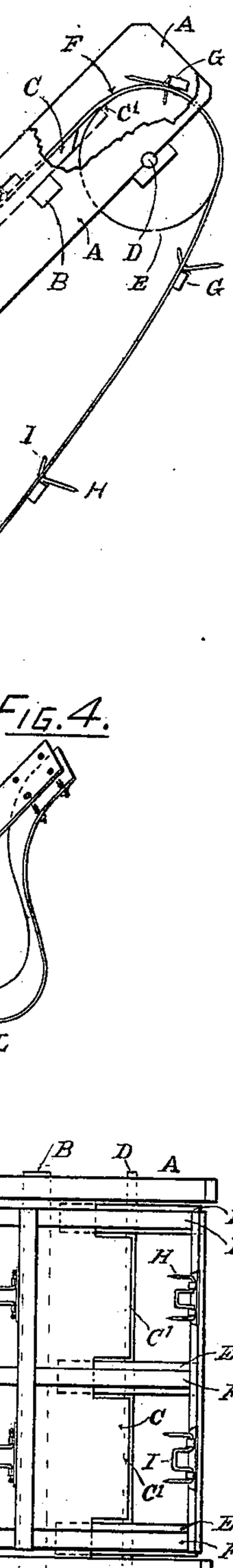
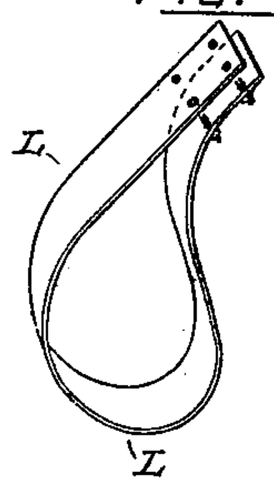


FIG. 4.



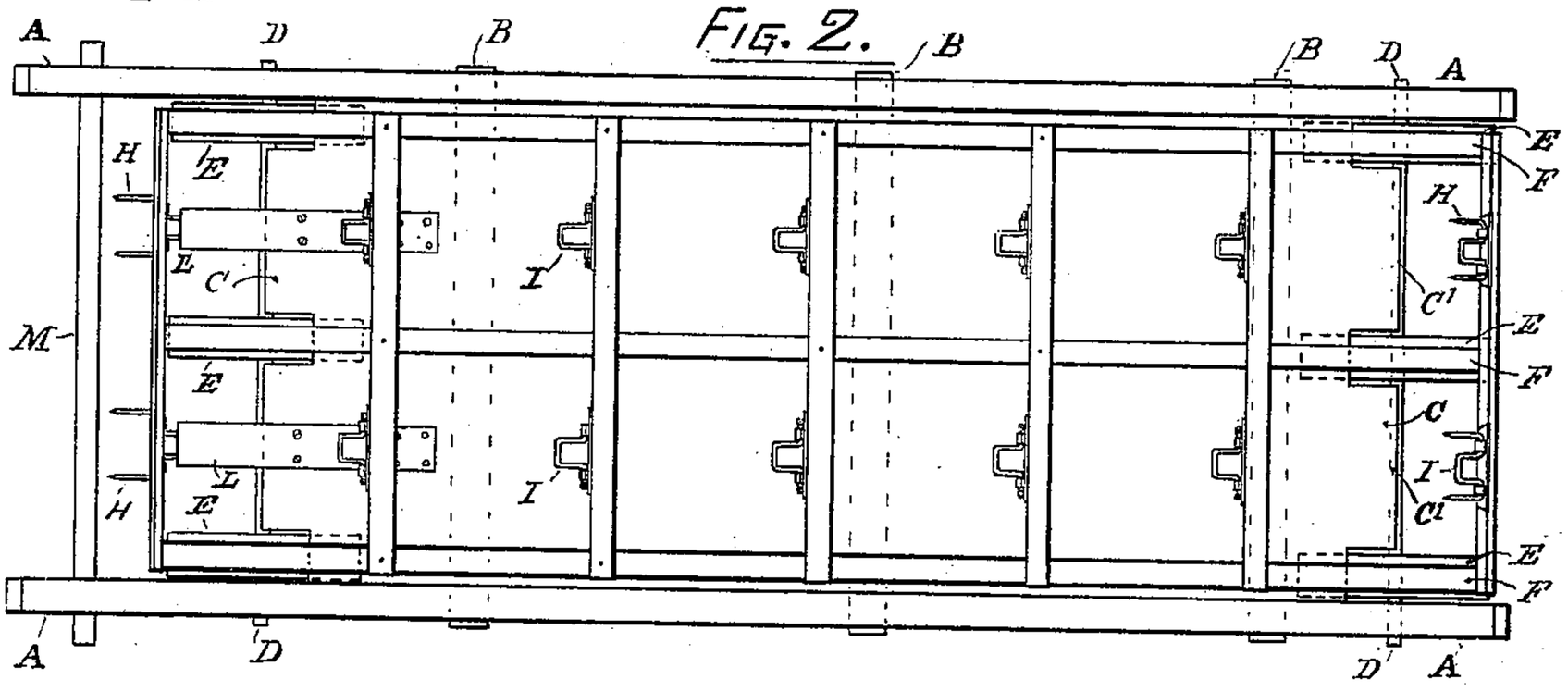


FIG. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

ZORA McGONEGAL, OF SUMMIT, JACKSON COUNTY, MICHIGAN.

STRAW-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 619,983, dated February 21, 1899.

Application filed April 16, 1898. Serial No. 677,822. (No model.)

To all whom it may concern:

Be it known that I, ZORA MCGONEGAL, a citizen of the United States, residing in the township of Summit, (Jackson P. O.,) in the county of Jackson and State of Michigan, have invented a new and useful Improvement in Straw-Elevators, of which the following is a specification.

My invention relates to improvements in straw-elevators in which cross bars or slats secured to endless belts travel longitudinally along and over the floor of the elevator, carried by pulleys at or near the ends of the elevator-frame.

The objects of my invention are, first, to elevate the straw with certainty without its falling or sliding back or clogging in its progress, especially when the elevator stands at a steep pitch; second, to have the straw entirely and promptly disengaged at the point of deposit, so that it shall not be raked back by the return of the rake-teeth (or forks) employed. I attain these objects by the use of rake-teeth (or forks) hinged to the cross-bars of the elevator-belts, which teeth or forks are self-righting in position by their coming in contact with metallic scroll-bands at the lower end of the elevator, which act similarly to inclined planes to raise a flank bend in the rake-teeth at the place of their return and are self-tripping at the point of completion of their work at the upper end and their returning therefrom.

The mechanism of my device is illustrated in the accompanying drawings, in which similar letters refer to similar parts in the several views.

Figure 1 is a side elevation broken away in places to show working parts. Fig. 2 is a plan view of the same laid horizontally. Fig. 3 is a perspective view of one of the slats with the forks attached, and Fig. 4 is a perspective view of one of the metallic scroll-bands.

A straw-elevator frame consisting of the side bars A A and cross-rails B B, having a floor C C lengthwise between the side bars and secured to the cross-rails B B, is provided with shafts D D. Running on these shafts D D are pulleys E E, which carry the belts F F, to which cross bars or slats G G are fastened, as shown, and all as in the ordinary straw-elevator. To the cross-slats G G, I fasten rakes or forks H H, as shown in Figs. 1, 2, and 3 and in detail in Fig. 3, which have a flank bend I by means of hinges K K. The hinges K K are formed of one piece, the ends K′ K′ of which extend out each way to form a rest against which the forks H H strike instead of striking on the slat, thus preventing wear on the slat when thrown up vertically.

Metallic scroll-bands L L are fastened to the upper and under sides of the floor at the lower end of the elevator, against which the flank bends I I of the rake-teeth H H strike to right up the teeth.

The operation of my device is as follows: The elevator is secured by hinging to the threshing-machine at M, so as to be raised and lowered, according to the height desired, at its upper or deposit end in the customary manner. The straw coming from the separator falls upon the elevator and is carried up mainly by the forks H H, which project up into the body of the straw, preventing any sliding or falling backward, but aided by the slats G G to the top of the elevator, whence it falls onto the place of deposit. The flank bends I I of the forks, dragging along on and supported by the floor C, are thereby kept parallel with and the forks perpendicular to said floor, and when they reach the upper end C′ of the floor the flank ends I I, having no further support, drop down, allowing the forks H H to freely fall back away from contact with the straw. At the lower end the flank bends I I of the forks H H come in contact with the metallic bands L L at L′, and by the convergence of the bands L L and the slats G G, carried by the belts F F, the forks H H are carried up erect and are so maintained by the flank bends I I, resting on the floor, again engaging the straw, which operation is continuous.

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

In a straw-elevator, the serial rake-teeth H, H, with their flank bends I, the cross-bars to which the teeth are independently connected by hinges, in combination with the running-board C, and metallic scroll-bands L, L, substantially as, and for the purposes described and set forth.

ZORA MCGONEGAL.

In presence of—
GEO. W. HOPKINS,
DESSIE SNYDER.