T. D. TOMPKINS.

APPARATUS FOR ELEVATING HOGS.

No. 184,930. Patented Nov. 28, 1876.

Fig. 1.

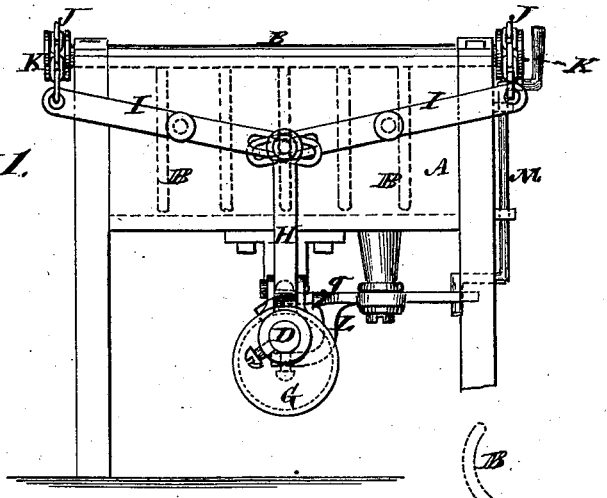


Fig. 2.

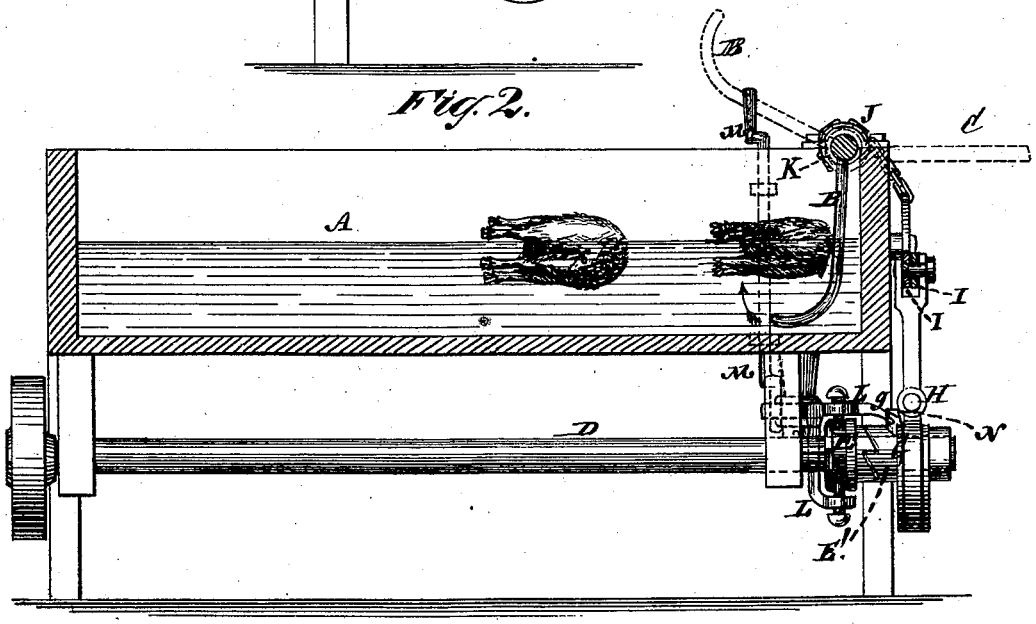
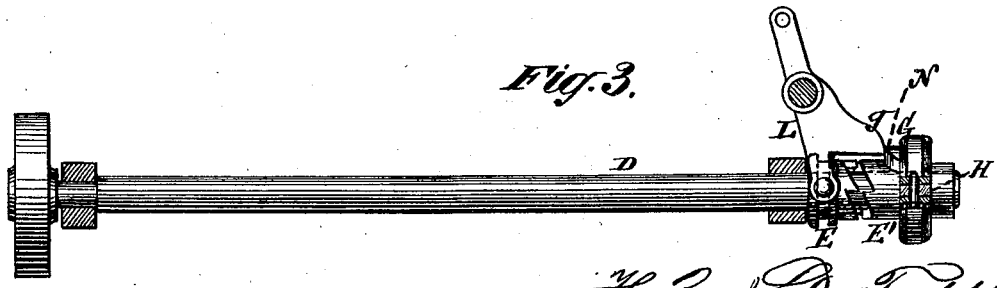


Fig. 3.



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IMPROVEMENT IN APPARATUS FOR ELEVATING HOGS.

Specification forming part of Letters Patent No. **184,930**, dated November 28, 1876; application filed October 3, 1876.

To all whom it may concern:

Be it known that I, THEODORE D. TOMPKINS, of the city, county, and State of New York, have invented certain new and useful Improvements in Hog-Elevators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

This invention relates to elevators used in connection with scalding-troughs for dressing or preparing hogs, the scalding-troughs serving to soften or facilitate the detachment of the bristles, and the elevators operating to lift the scalded hogs from the trough and to throw them over or onto a table, where the bristles are removed by scraping or otherwise. The invention is more particularly designed to be applied to apparatus for dressing or preparing hogs by machinery, and in which the removal of the bristles from the body is effected by automatic scrapers. Said invention consists in certain combinations of mechanism for operating and controlling the elevator used to lift the hogs out of the scalding-trough, whereby labor is economized and the work expedited.

Figure 1 represents an end view of a hog-scalding trough, with the elevator, and my improved means for operating the latter by machinery, applied. Fig. 2 is a vertical section of said trough, with the elevator and means for operating the latter attached; and Fig. 3 a plan view of the elevator operating-shaft, with clutch mechanism for putting the elevator in or out of gear with said shaft.

A is the scalding-trough, into which the hogs, as killed, are introduced, by chute or otherwise, and B is the rocking pronged elevator for lifting the hogs, as scalded, from the trough A onto a table, C, where the bristles are removed. Ordinarily this elevator is rocked by hand to turn it from the position shown by full lines in Fig. 2 to that represented for it by dotted lines in the same figure, to transfer the hog from the trough to the table C. This is both a slow and laborious operation. By my invention, steam or other power applied to rotate a shaft, D, serves to remove the scalded hog from the trough onto the table. Said shaft D may be the main or engine shaft, and be used to drive the bristles scraping or removing apparatus, when such is used. As the shaft D is kept continually moving, while the elevator B only requires to be operated at intervals at the discretion of the person in charge, I provide the following means for controlling and actuating said elevator: On said shaft D, at the elevator end thereof, is a clutch, which is here represented as a rag one, but which might be a friction-clutch. One-half E of this clutch is fitted so as to slide by a feather on the shaft D, and turns with the latter, while the other half E′ of said clutch is fitted loose on the shaft D and is fast to an eccentric, G, also loose on said shaft. When the half-clutch E is out of gear with the loose half-clutch E′, then no lifting motion is communicated to the elevator, and the shaft D continues to rotate without affecting the elevator; but when the two half-clutches are put in gear with one another, then a lifting action is communicated to the elevator B by the eccentric G, through the instrumentality of a rod, H, operated by the eccentric, slotted levers I I actuated by said rod and extending to opposite sides of the trough, and chains or ropes J J fast to the outer ends of said levers and to pulleys K K on the ends of the rocking-shaft of the elevator B. The sliding half-clutch E is put in gear with the loose half-clutch E′, when it is required to give the elevator B its lift or hog-delivering action, by means of a shipping-lever, L, which may be actuated by a cranked hand-rod, M, for such purpose. Such shipping-lever L might be worked by the operator in both directions to put the half-clutches in and out of gear, as required, but as the weight of the elevator and its immediate connections will be sufficient to return the elevator to its normal position after delivering its load, I prefer to make the disconnection of the half-clutches automatic, and so that as soon as the elevator B has thrown the scalded hog onto the table C the half-clutch E, without any manipulation on the part of the operator, is slid back out of gear. This I do by motion derived from the power-shaft D, as follows: On the half-clutch E or eccentric G, to which it

is fast, is a disengaging-cam, N, arranged so that as soon as the elevator has been lifted and discharged its load it acts upon a wing, *g*, of the shipping-lever L to slide the half-clutch E out of gear with the half-clutch E′. The elevator B then falls and remains down till the shipping-lever L is again adjusted by the hand of the operator to put the clutches E E′ in gear with one another for the power-shaft D to effect the lift of the elevator again, said shaft D in the meantime continuing to rotate, but having no action on the elevator. Thus the mere adjustment of one of the half-clutches to put it in gear with the other half-clutch is all the work which is required of the operator or person in charge.

I claim—

1. The combination, with the trough A and elevator B, of the shaft D, the half-clutches E E′, the eccentric G, the rod H, the levers I I, and the elevator-lifting ropes or chains J, substantially as and for the purpose specified.

2. The combination of the disengaging-cam N and loose half-clutch E′ with the shipping-lever L and sliding half-clutch E on the shaft D, the elevator B, and means for lifting the latter by the power-shaft D, the two half-clutches being made to engage with one another, essentially as described.

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