

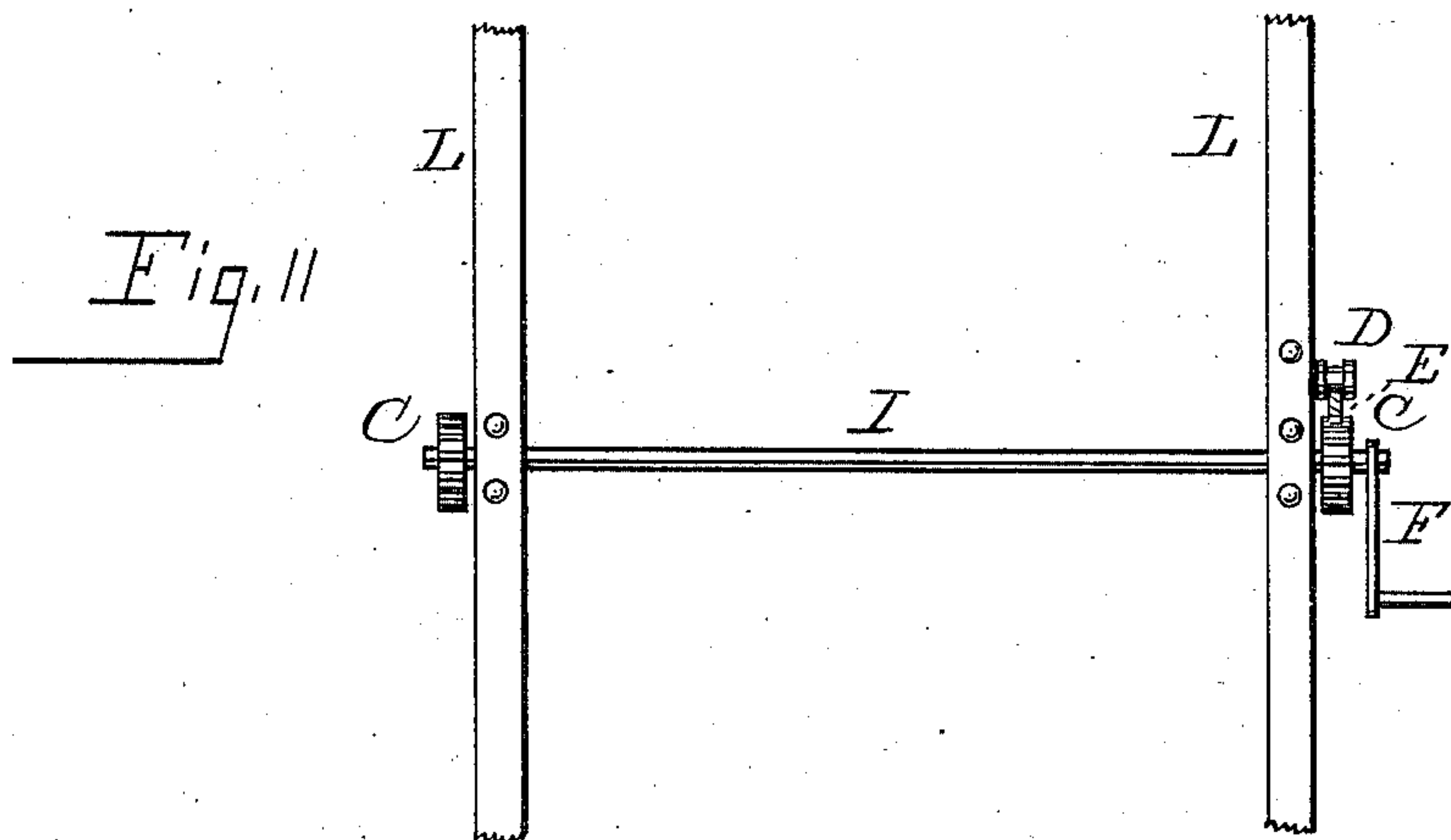
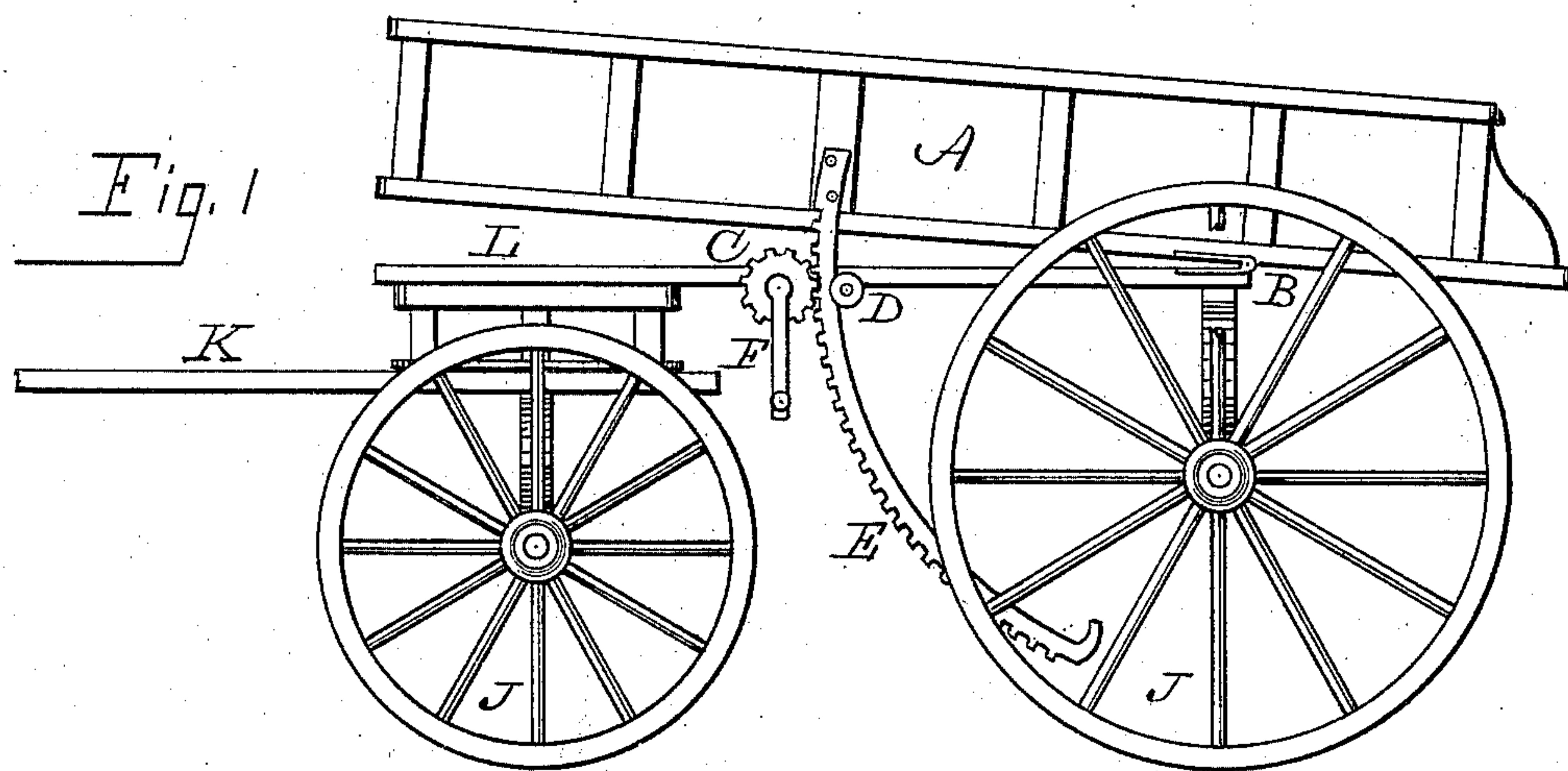
(No Model.)

L. ZINKAND & A. HOFFERBERTH.

DUMPING WAGON.

No. 301,316.

Patented July 1, 1884.



WITNESSES:

*John Trautman*  
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INVENTOR

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# UNITED STATES PATENT OFFICE.

LOUIS ZINKAND AND ADAM HOFFERBERTH, OF DAYTON, OHIO.

## DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 301,316, dated July 1, 1884.

Application filed March 20, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, LOUIS ZINKAND and ADAM HOFFERBERTH, citizens of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a certain new and useful Improvement in Dumping-Wagons; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to an improved dumping device for wagons; and it consists of a bed hinged to the rear ends of side rails which connect the rear axle to the bolster, a curved rack attached to both sides of the bed, and a pinion to engage the same supported on a shaft having bearings secured to said side rails. A crank is attached to the shaft to give the requisite movement, and a flanged roller is used as a stay to the curved rack.

The mechanism is illustrated in the accompanying drawings, in which Figure I is a side view of the dumping-wagon. Fig. II is a fragmentary plan of the dumping device.

Similar letters refer to similar parts throughout the several views.

The running-gear of the wagon is like those in general use, the novelty consisting in the curved rack and pinion and minor parts, as will be hereinafter fully set forth. The side rails, L, connect the rear axle to the bolster, the rear ends of which are attached to the bed by hinges B, slightly to the rear of the hind axle. To the sides of the bed A is bolted the curved rack E. The curve of the

rack has for its center the center of the hinge-joint. On its outer surface it has a series of cogs, is flattened at the top where it joins the body, and has a hook at its lower end to engage the flanged roller D, and thereby arrest the movement of the bed. The shaft I is supported in bearings on the under side of the rails. On this shaft, external to the rails, are supported the pinions C, which engage the curved racks. On the end of the shaft is attached the crank F. The double flanged or grooved roller D embraces the back of the rack and serves as a stay and guide.

The operation is thus: To discharge a load of sand or other material, turn the crank so as to elevate the front of the bed until gravity causes the discharge, then the bed is lowered again to the rails. The rack may be pivoted to the bed, and may then have a different curve from that heretofore described, and then the relation of the curved rack to the pinion would be dependent wholly on the grooved roller.

Having fully described our invention, what we desire to secure by Letters Patent is—

In a dumping-wagon, the bed A, hinged to the rear ends of side rails, in combination with shaft I, with crank to operate the same, pinions C, curved racks E, with arresting-hook on end of same, and grooved roller D, substantially as set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

LOUIS ZINKAND.  
ADAM HOFFERBERTH.

Witnesses:

B. PICKERING,  
C. A. WALTMIRE.