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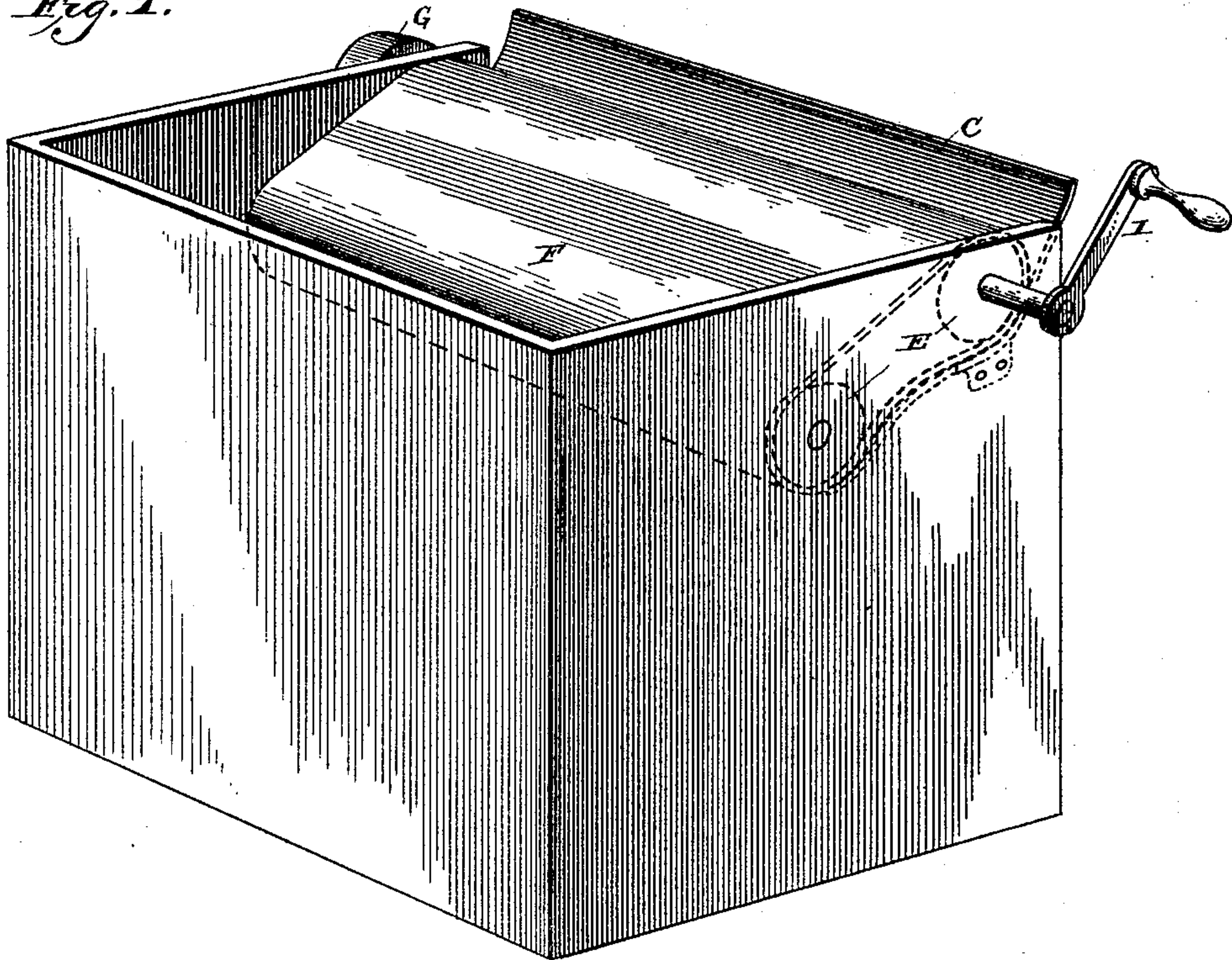
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R. A. KELLY.  
GRAIN SEPARATOR.

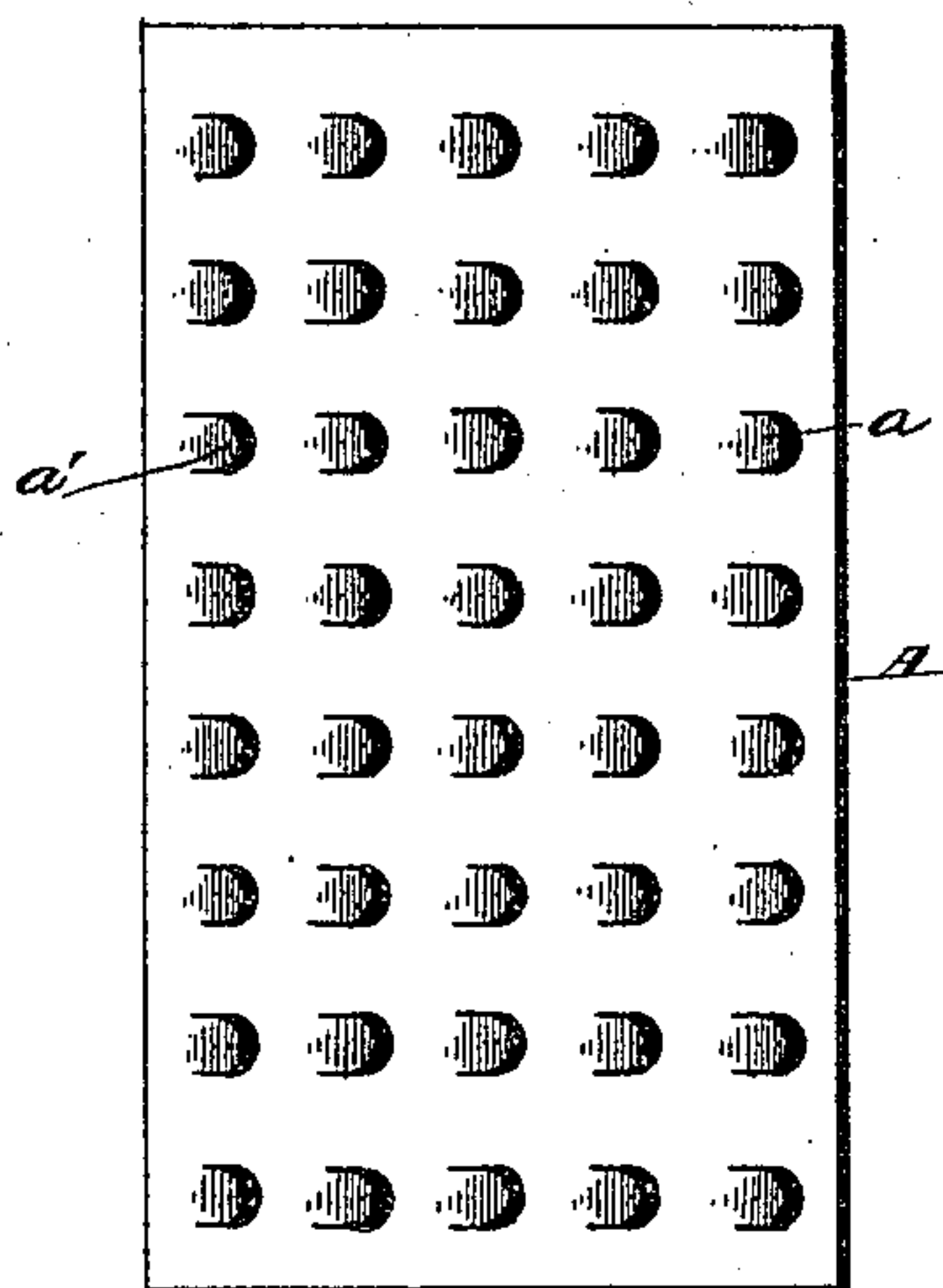
No. 466,243.

Patented Dec. 29, 1891.

*Fig. 1.*



*Fig. 5.*



WITNESSES

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INVENTOR

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(No Model.)

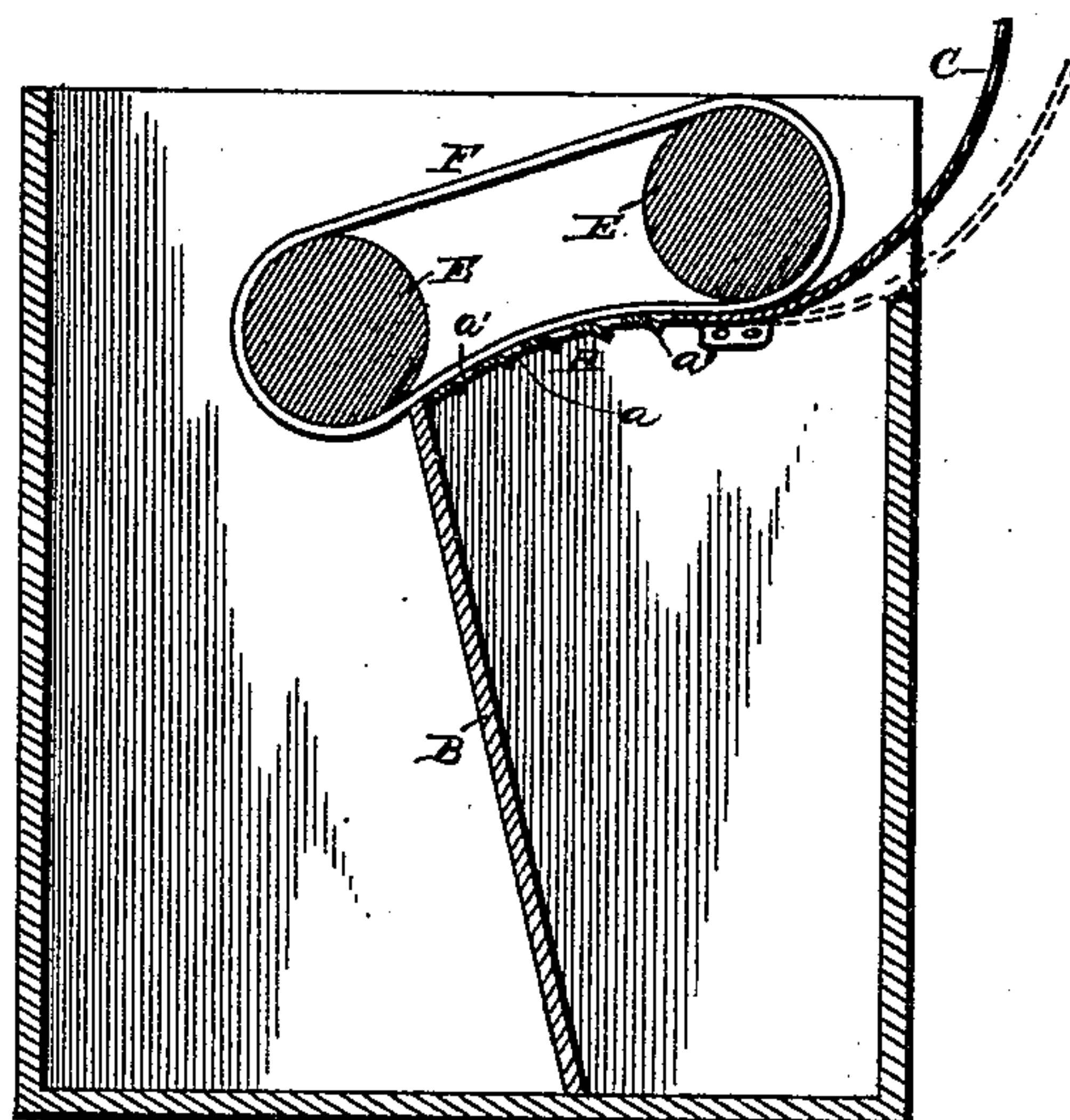
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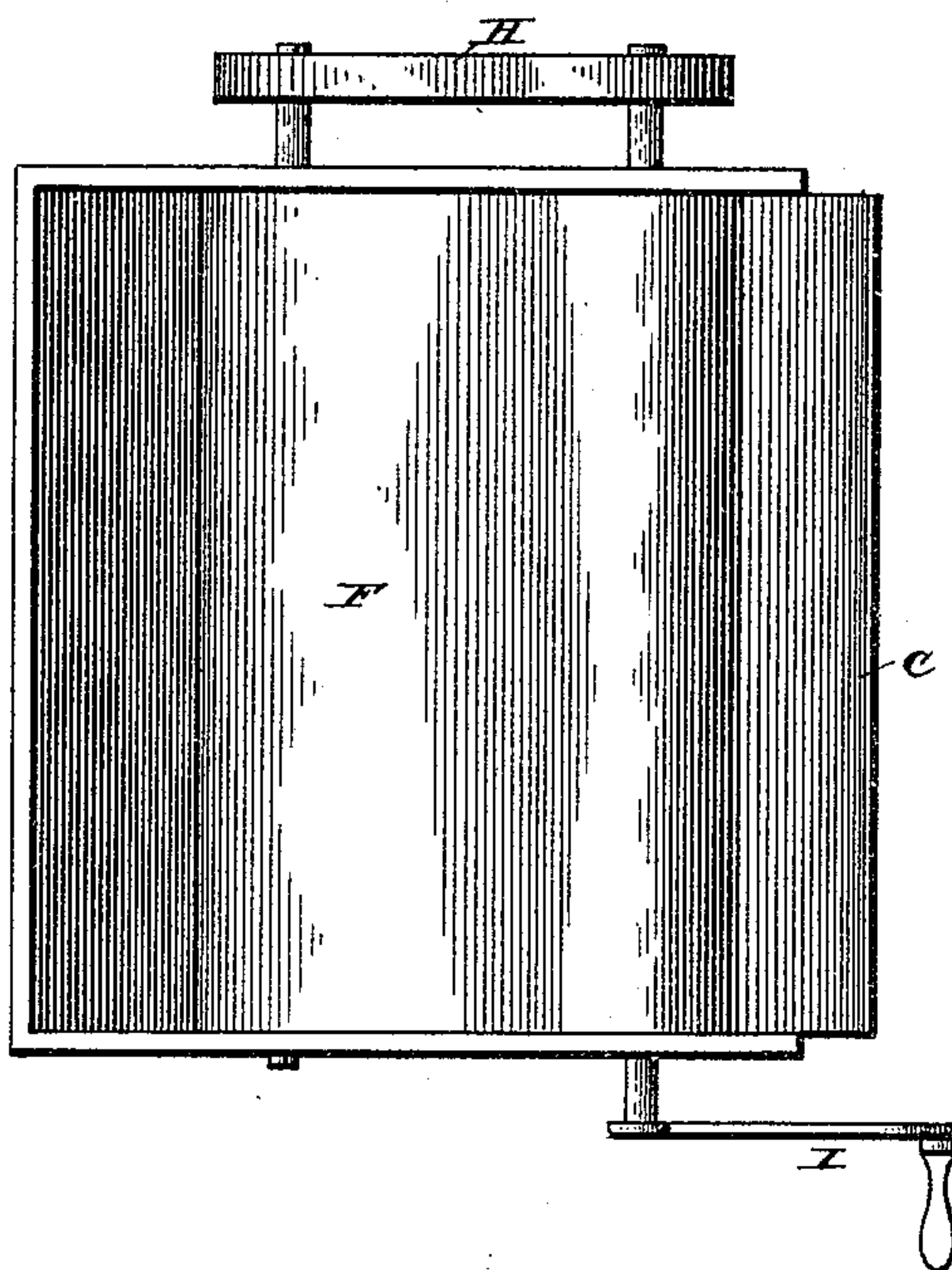
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*Fig. 2.*



*Fig. 3.*



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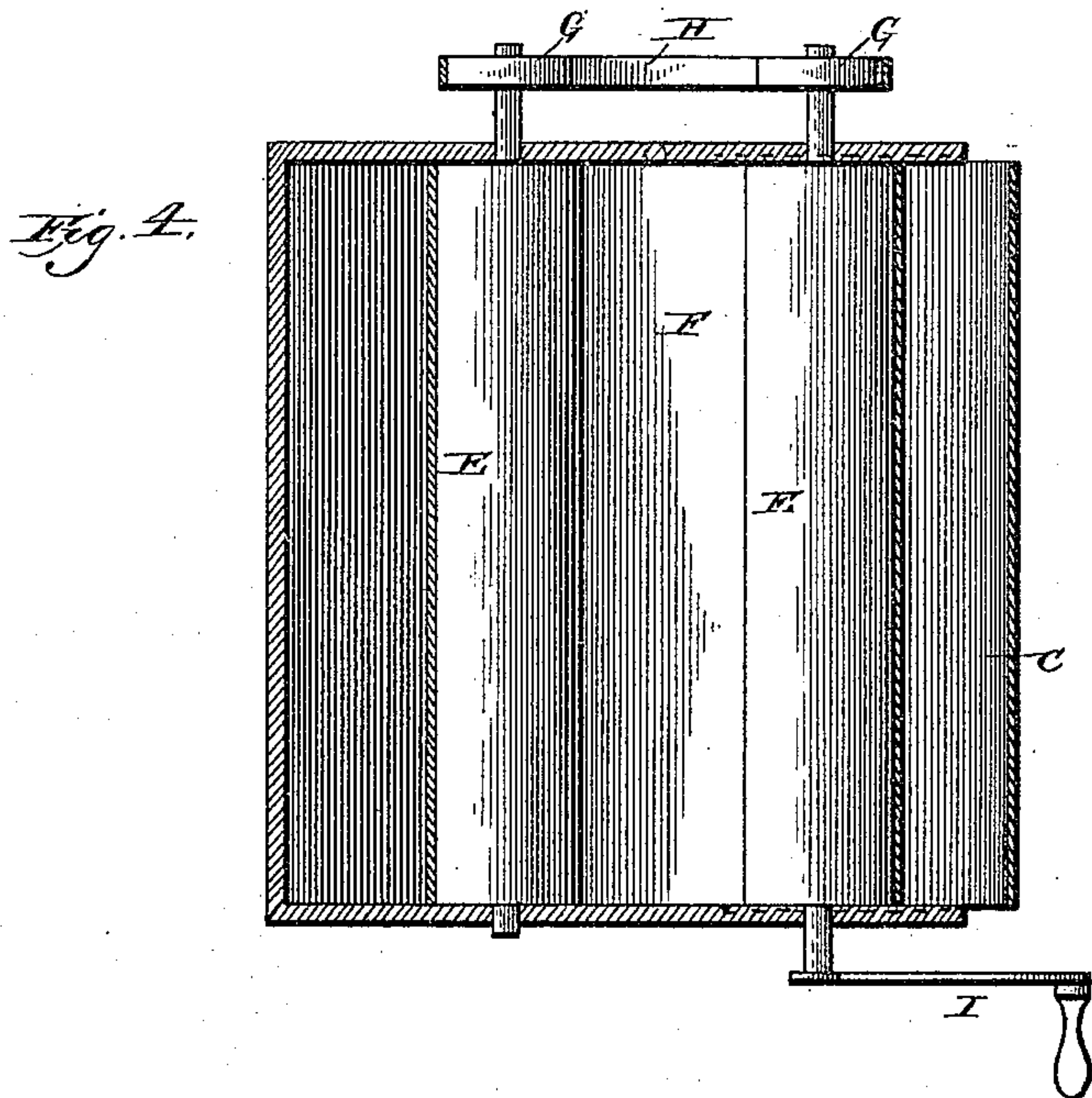
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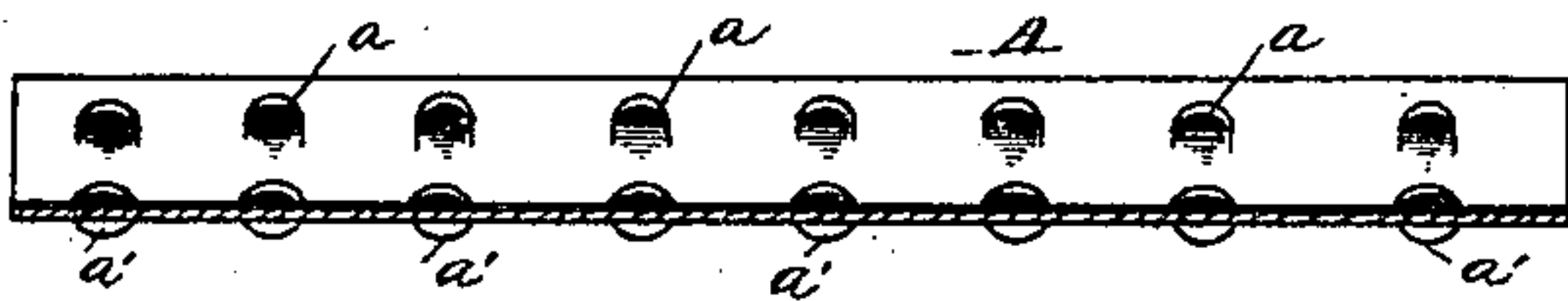
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*Fig. 6.*



*Fig. 7.*



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# UNITED STATES PATENT OFFICE

RICHARD AUGUSTINE KELLY, OF WEBSTER CITY, IOWA.

## GRAIN-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 466,243, dated December 29, 1891.

Application filed August 13, 1888. Renewed February 18, 1891. Serial No. 381,810. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD AUGUSTINE KELLY, a citizen of the United States, residing at Webster City, in the county of Hamilton and State of Iowa, have invented certain new and useful Improvements in Grain-Separators; and I 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.

This invention relates to grain-separators; and its object is to provide a machine of this class designed for separating oats from wheat and other small grain ready for the market.

A further object of the invention is to provide a grain-separator of the above character possessing advantages in point of simplicity, durability, inexpensiveness, and general efficiency.

In the drawings, Figure 1 is a perspective view of a grain-separator embodying my invention. Fig. 2 is a longitudinal sectional view thereof. Fig. 3 is a top or plan view. Fig. 4 is a transverse sectional view. Fig. 5 is a detail top or plan view of the sieve. Fig. 6 is a sectional view of the same. Fig. 7 is a similar view at right angles thereto.

Corresponding parts in the figures are denoted by the same letters of reference.

Referring to the drawings, A designates a sieve of any suitable material, secured at the sides of the separator, and is preferably cambered, as shown. The perforations *a* of the sieve are of such a diameter that short grains like wheat will be permitted to fall through them, while oats will be carried over said sieve by the means hereinafter described and discharged in front of the same free of all other grain. The front edges *a'* of these cut portions are inclined, as shown, to permit of the free passage of the oats over the sieve. The front edge of the sieve adjoins or is connected with the top edge of a downwardly and rearwardly inclined partition B, which divides the grain falling through the sieve from the oats discharged in front thereof.

C designates a spring-plate of the same length as the sieve A, and its one edge has

bearing against the said sieve. The sides of said spring-plate are secured to the sides of the bin, either by being inserted in grooves in said bin, as shown in Fig. 4, or by an ear or lug projecting downward therefrom, as shown in Figs. 1 and 2. I do not limit myself to the mode of fastening said plate C in the bin, as any suitable means of fastening may be employed. The outer end of the plate C is curved upward and is adapted to catch the grain falling thereinto from a suitably-situated spout. (Not shown.)

Journaled within the separator at the front and rear sides of the sieve are two rollers E E, carrying an endless apron F, said rollers being so journaled that the apron is drawn closely upon the sieve and holds the oats in an inclined position during their passage over the perforations in the said sieve. At one end of the rollers E are rigidly secured pulleys G G, around which passes an endless belt H, by the employment of which rotation is imparted from one roller to the other instead of through the medium of the apron. By the employment of this construction the apron, should it be slack, will not wrinkle as it passes over the sieve, but will be drawn tightly thereon. The rollers are rotated by means of a crank I, secured to the axis of one of them at the outside of the separator, or in any other suitable or preferred manner.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains. As the grain falls from the spout or hopper it is received by the spring-plate, which "gives" or yields, thereby permitting the grain and stones or other foreign substance that may be contained therein to pass under the roller and without damage thereto or to the apron. The oats being held in an inclined position and the perforations in the sieve of less diameter than the same, they are carried by the apron safely over the sieve and discharged in front of the partition, while the shorter grain falls through the sieve.

I claim as my invention—

In a grain-separator, the combination of a receptacle having a partition therein, a

cambered sieve mounted in the upper part  
of the receptacle, a spring-plate mounted ad-  
jacent to the sieve and forming a flaring  
mouth for the reception of grain, and revolu-  
5 ble rolls carrying a belt bearing upon the  
sieve, substantially as and for the purpose  
set forth.

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

RICHARD AUGUSTINE KELLY.

Witnesses:

R. G. CLARK,  
CHAS. H. ARTHUR.