

(No Model.)

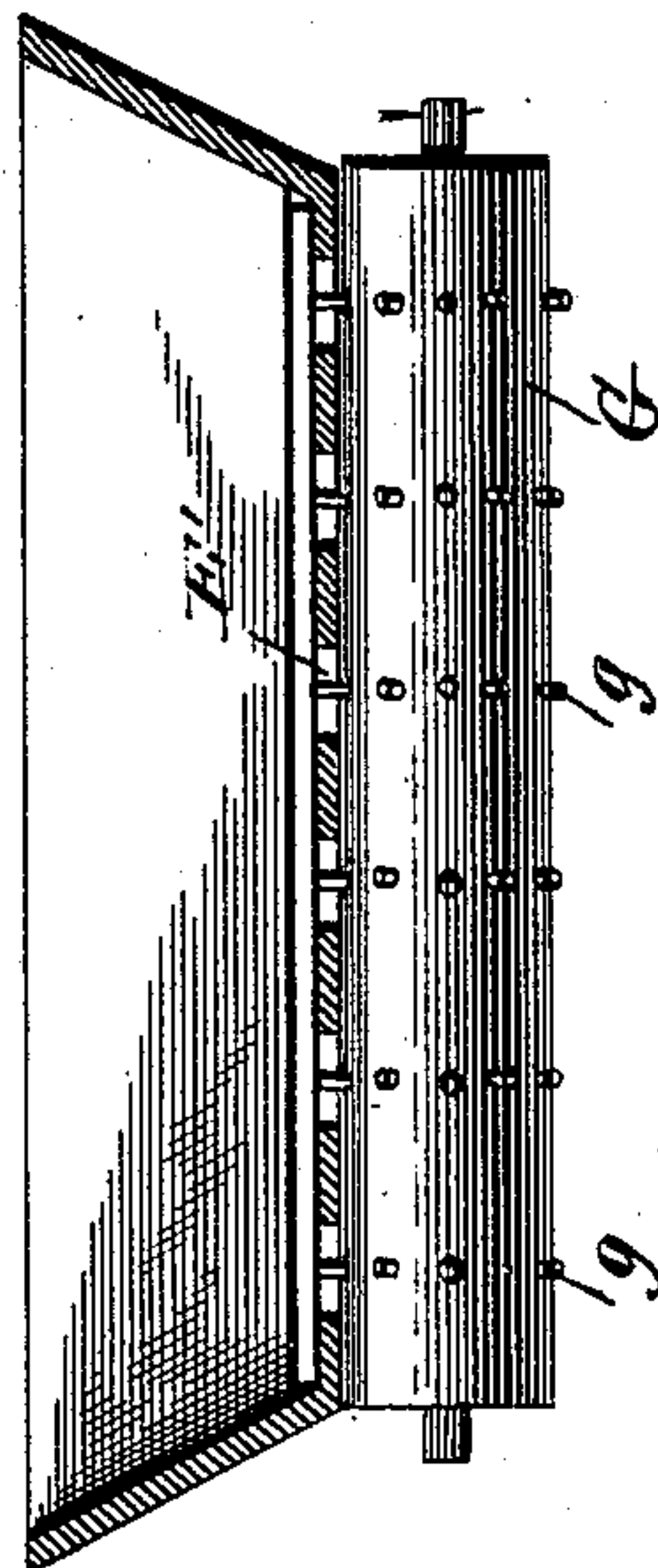
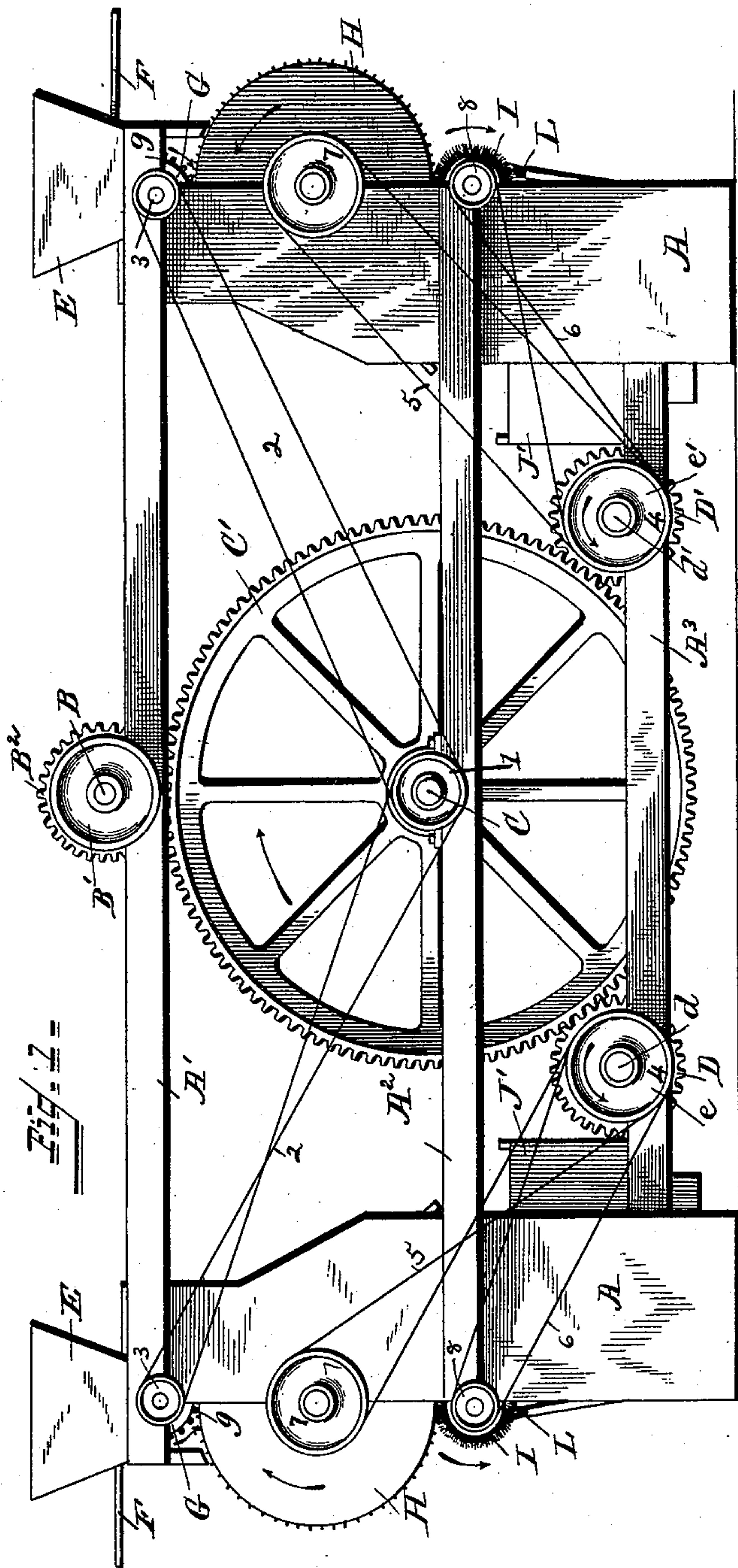
2 Sheets—Sheet 1.

P. V. WESTFALL.

COTTON GIN.

No. 385,982.

Patented July 10, 1888.



Witnesses.

Albert Spiden.

E. A. Bond.

Inventor.

Peter V. Westfall

By his Attorney.

Chas. H. Fowler.

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2 Sheets—Sheet 2.

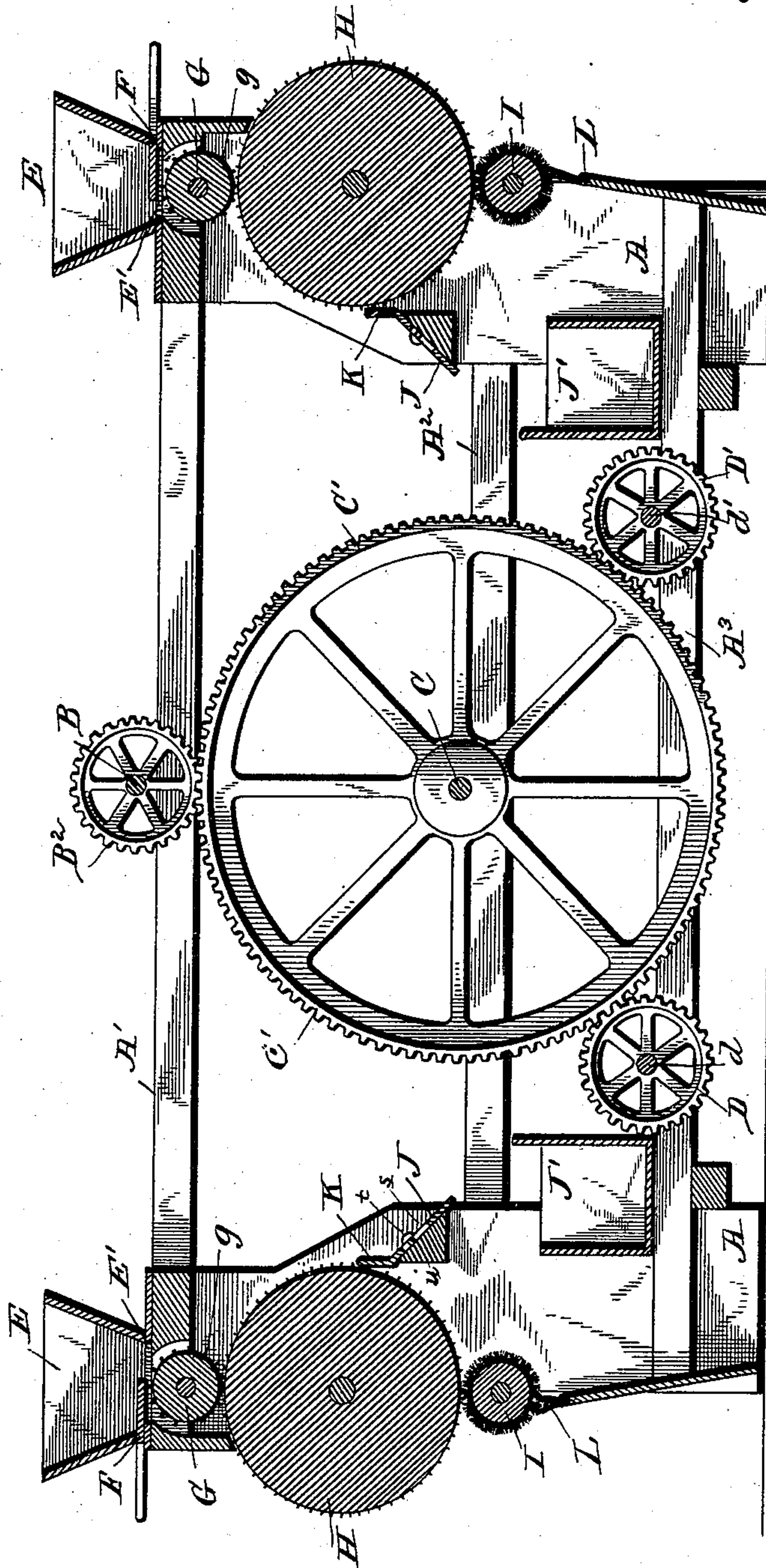
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Fig. 2.



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UNITED STATES PATENT OFFICE.

PETER V. WESTFALL, OF KALAMAZOO, MICHIGAN.

COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 385,982, dated July 10, 1888.

Application filed October 15, 1887. Serial No. 252,418. (No model.)

To all whom it may concern:

Be it known that I, PETER V. WESTFALL, a citizen of the United States, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Cotton-Gins; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention relates to certain new and useful improvements in cotton-gins, and has for its objects to simplify the construction, increase the durability, and render more efficient in operation this class of machines.

The invention consists in the peculiar combinations and the novel construction, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then specifically defined by the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation of a cotton-gin constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a detail.

Referring by letter to the drawings, A designates a suitable frame designed to support the operating parts, which frame may be of wood or metal, or part wood and part metal, as may be preferred, and may be of any desired size. In the upper longitudinal bars, A', of this frame is suitably journaled, substantially in the center thereof, the transverse shaft B, carrying a band-pulley, B', to which power is designed to be applied by suitable belting. (Not shown.) Suitably journaled in the middle longitudinal timbers, A², of the frame in vertical line with the shaft B is the shaft C, carrying the large gear-wheel C', which meshes with the gear-wheel B² on the shaft B, as shown in Figs. 1 and 2. This large gear-wheel C' also meshes with the gear-wheels D and D', carried by the shafts d and d', respectively, suitably journaled in the lower longitudinal timbers, A³, of the frame, one upon each side of the big gear-wheel. Each of these shafts d and d' carries a band-pulley, e or e', as shown in Fig. 1. At each end of the frame I place

a hopper, E, having the slatted bottom or openings E', and provide an adjustable slide, F, to vary the size or extent of the openings. Below the bottom of each hopper is journaled the roller G, provided with a plurality of pins or projections, g, and below this roller is journaled the carding-cylinder H, beneath which in vertical line therewith is the brush I. The shafts of the feed-rollers G, carding-cylinders, and brushes are provided with suitable band-pulleys, as is also the shaft of the large gear-wheel C'.

J is an inclined rest adjustable by means of the slots s in the rest and set-screws t engaging the support u, as shown, and carried by this rest is the apron K, arranged in close contact with the carding-cylinder.

L represents substantially vertical brushes arranged, as shown, in proximity to the brushes I, for a purpose hereinafter described.

On the shaft C is a double band-pulley, 1, around which pass the belts 2, each of which passes around a pulley, 3, on the shaft of the rollers G. The shafts d each carry a double band-pulley, 4, around which pass the belts 5 and 6, the former passing around a pulley, 7, on the shafts of the cylinders H and the other, 6, around pulleys 8 on the shafts of the brushes.

Motion being imparted to the shaft B, the feed-rollers, carding-cylinders, and revolving brushes are caused to revolve in the directions indicated by arrows in Fig. 1 through the medium of the belts and cross-belts, as shown in said figure. The cotton is fed into the hoppers, when it is caught by the fingers g of the feed-rolls, loosening the seed from the fibers, the cross-bars of the slatted openings preventing the cotton from wadding. The carding-cylinders loosen up the fibers of the cotton for the action of the brushes, as will be readily understood. As the cotton is carried around by the carding-cylinders, the seed which may still adhere to the fibers cannot pass between said cylinders and the aprons K; hence it is separated from the fibers and falls down over the rests J into suitable receptacles, J', provided therefor, and to this construction, whereby the seed is loosened before coming in contact with the carding-cylinders, I attach great importance.

It is to be understood that one set of devices, consisting of a hopper, carding-cylinder, brushes, rest, and receptacle, is employed at each end of the machine. The brushes I brush
5 off the clean cotton from the carding-cylinders, and the brushes L serve to clear the brushes I.

What I claim as new is—

10 1. In a cotton-gin, the combination, with the carding-cylinder and hopper, of the toothed roller G, arranged between said hopper and cylinder, and an apron arranged in proximity to said cylinder on a lower plane than the seed remover, substantially as described.

15 2. In a cotton-gin, the combination, with the hopper and carding-cylinder, of the toothed roller G, arranged between said hopper and cylinder, an inclined rest, J, and an apron, K, carried by said rest in proximity to said cylinder,
20 der, as set forth.

3. In a cotton gin, the combination, with the hopper and carding-cylinder, of the toothed roller G, arranged between said hopper and cylinder, an inclined rest, J, means for adjusting said rest, and an apron, K, carried by said
25 rest in proximity to said cylinder, as set forth.

4. The combination, with the frame, the hoppers having slatted openings E', feed-rollers, carding-cylinders, and brushes, of the aprons K, the centrally-disposed gearing, and
30 belt-connections between said gearing and the feed-rollers, cylinders, and brushes, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence
35 of two witnesses.

PETER V. WESTFALL.

Witnesses:

BENJ. F. PARKER,
GEORGE P. HOPKINS.