

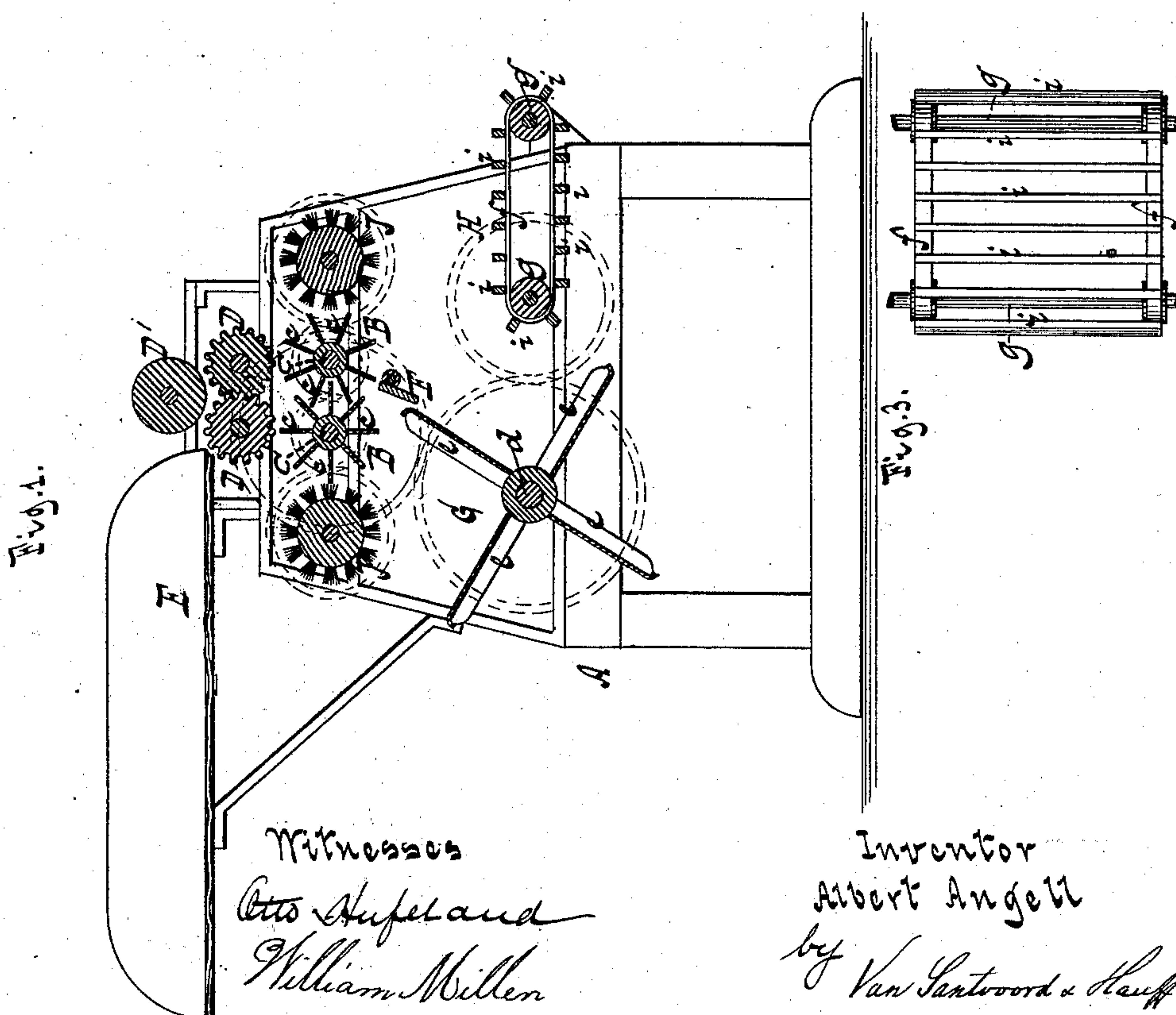
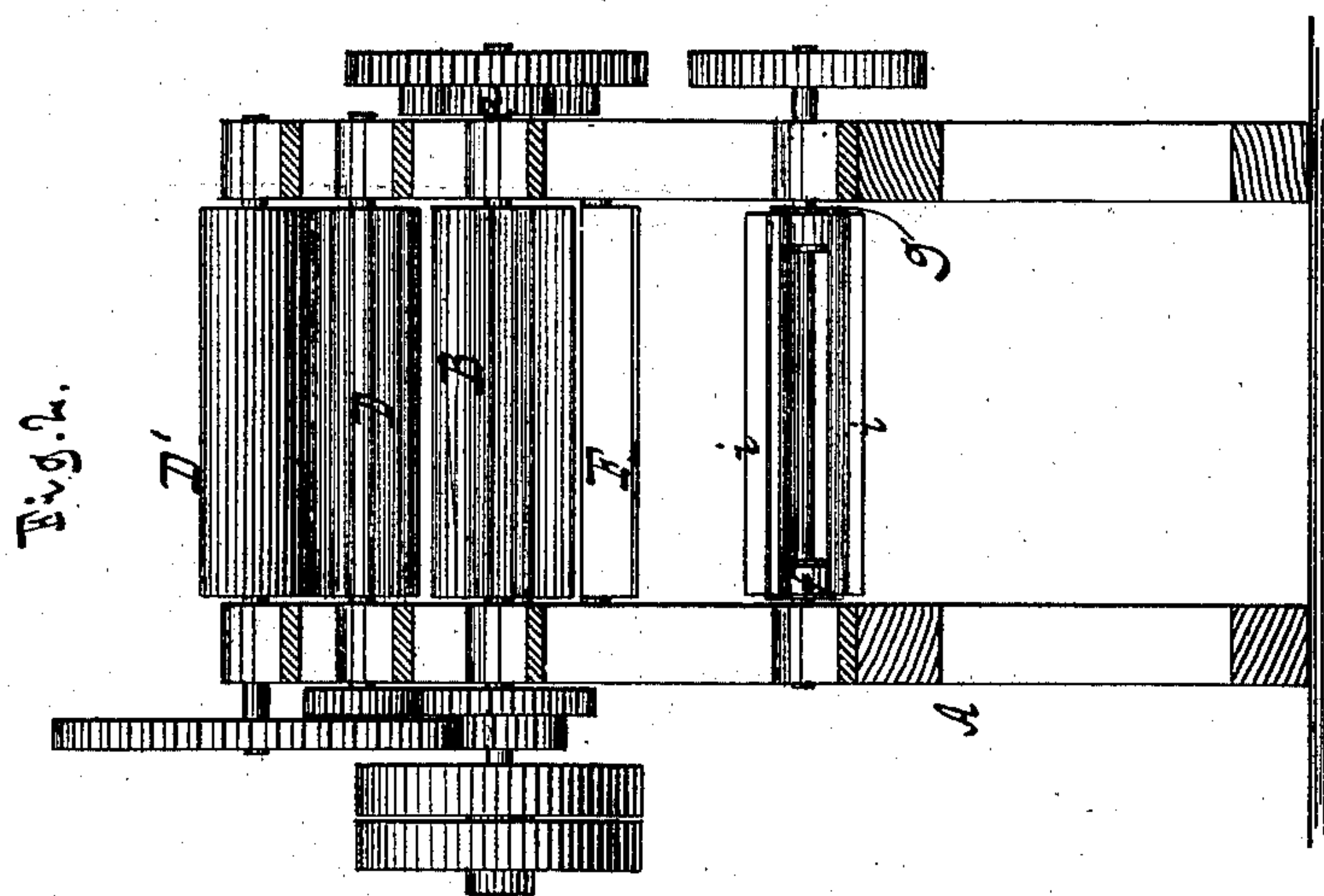
(No Model.)

A. ANGELL.

Machine for Decorticating Fibrous Stalks.

No. 237,463.

Patented Feb. 8, 1881.



Witnesses
Otto Hufeland
William Miller

Inventor
Albert Angell
by Van Santvoord & Hauff
his attys.

UNITED STATES PATENT OFFICE.

ALBERT ANGELL, OF EAST ORANGE, ASSIGNOR OF TWO-THIRDS TO
MARTIN DENNIS, OF NEWARK, NEW JERSEY.

MACHINE FOR DECORTICATING FIBROUS STALKS.

SPECIFICATION forming part of Letters Patent No. 237,463, dated February 8, 1881.

Application filed June 17, 1880. (No model.)

To all whom it may concern:

Be it known that I, ALBERT ANGELL, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Machines for Decorticating Fibrous Stalks, of which the following is a specification.

This invention relates to machines for decorticating ramie or other fibrous stalk, as described in Letters Patent of the United States granted to me September 16, 1879, No. 219,668, and May 11, 1880, No. 227,469.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a vertical cross-section. Fig. 2 is a vertical longitudinal section. Fig. 3 is a plan view of the delivery-apron.

Similar letters indicate corresponding parts.

The letter A designates the machine-frame, and B B two scrapers mounted on shafts C C, which are geared together by cog-wheels *a a*, to impart to the scrapers a positive revolving motion. The scrapers B B are both constructed with radial blades *c c*, and are set to such positions relatively to each other that the blades of one interlock with those of the other in the motions thereof, and the effect of this arrangement is that if ramie or other fibrous stalks are introduced to the scrapers in a proper manner the same are stripped of bark, the respective blades of one scraper acting as a rest or support for the stalks, while the blades of the other scraper sweep over the same. Another effect of the arrangement of the scrapers B B is that the stalks passing between them are bent into a zigzag course by the action of the blades, and by this means the pith is loosened so as to detach itself from the stalks.

With the scrapers B B are combined feed-rollers D D, which may be smooth, but which are in this example corrugated lengthwise thereof, as shown, so that the stalks passing between them are crushed, which materially facilitates the removal of the bark and pith by the action of the scrapers B B.

Above the feed-rollers D D is located a supplemental feed-roller, D', for guiding the stalks into the bight of the main rollers, and

adjacent thereto is fastened a feed-board or tray, E. The stalks discharged by the scrapers B B pass over a support, F, where they are subjected to the action of a beater or fan, G, and thus deprived of any adhering pith, the fiber being next received on an endless delivery-apron, H.

The beater or fan G is mounted on a shaft, *d*, and is given a revolving motion by suitable gearing, while it has wings *e*, which impinge against the support F in the motion of the beater or fan, to produce the action thereof on the stalks.

The support F yields to the pressure of the wings *e* of the beater, and in this example it is, to that end, made of leather or analogous material, and is left free on the lower edge. In the revolutions of the beater or fan G its wings *e* produce an artificial current of air in the direction of the delivery-apron H, and when the fibers leave the support F they are brought into such current, and are thus blown or deflected onto the delivery-apron, so that their reception on this apron is insured.

The delivery-apron H is constructed of side bands, *f f*, running over rollers *g g*, to either or both of which a revolving motion is imparted by suitable gearing, and of transverse slats *i*, attached to the bands, with spaces left between the slats, as shown, so that if any adhering pith detaches itself from the fiber falling on the apron it is permitted to escape through such spaces. Adjacent to the scrapers B B are arranged revolving brushes J J, acting thereon to keep the same clear of pith or bark.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a machine for decorticating fibrous stalks, the combination of two revolving scrapers, both constructed with radial blades, and so arranged that the blades of one interlock into those of the other in the motions thereof, for the purpose of stripping the bark from the stalks and bending the same to loosen and detach the pith, substantially as described.

2. In a machine for decorticating fibrous stalks, the combination, with the interlocking scrapers, of a yielding support for the fiber as discharged by the scrapers, an endless deliv-

ery-apron, and a revolving beater or fan having wings, which impinge against the yielding support in the motions thereof, thereby depriving the fiber of any adhering pith, and
5 which produce a current of air adapted to blow the fiber onto the delivery-apron, substantially as described.

3. In a machine for decorticating fibrous stalks, the combination, with interlocking
10 scrapers, of an endless delivery-apron, con-

structed of side bands and transverse slats, with spaces between the slats for the escape of pith, substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence of two sub- 15 scribing witnesses.

ALBERT ANGELL. [L. S.]

Witnesses:

MARTIN DENNIS,
W. HAUFF.