

(Model.)

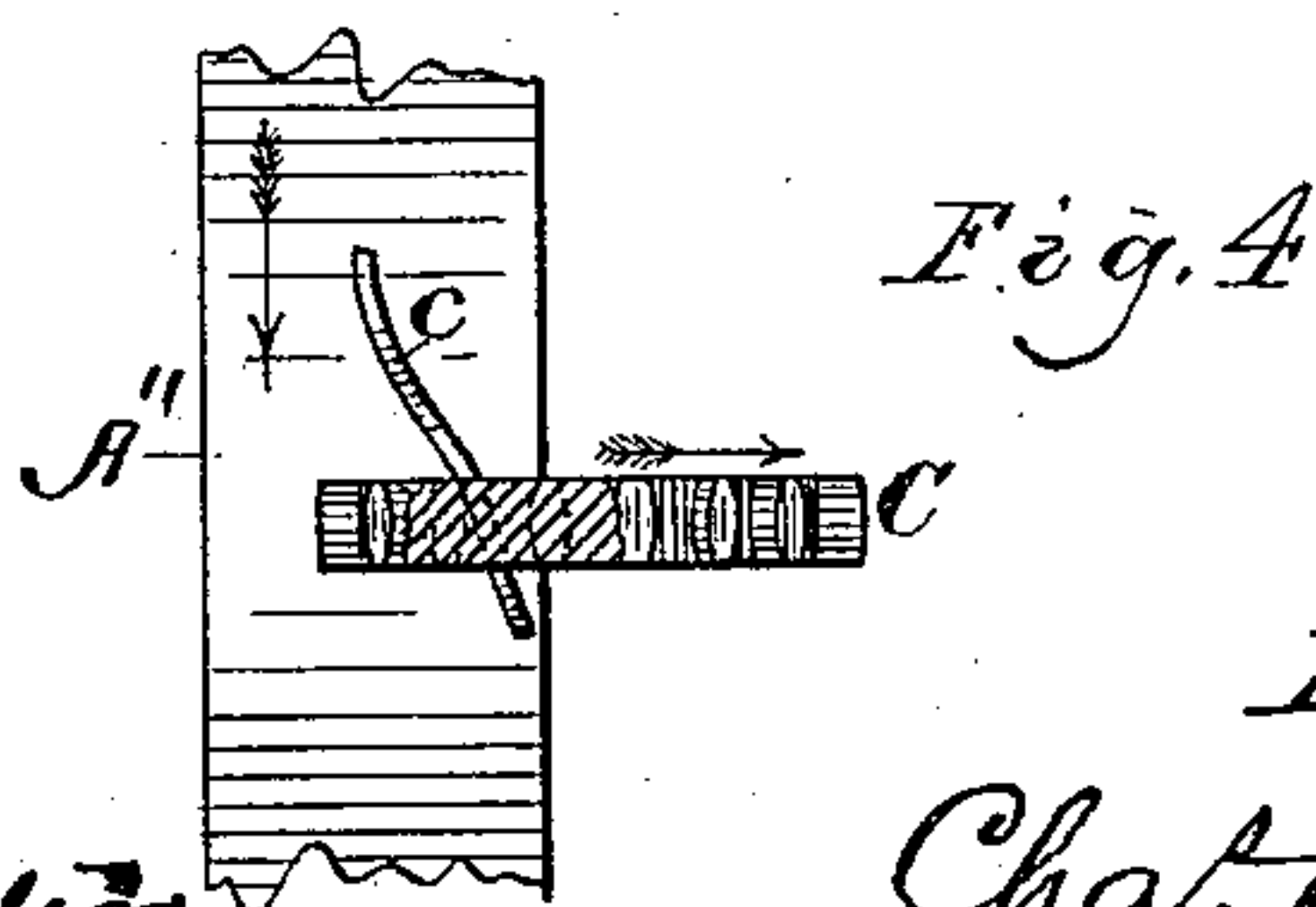
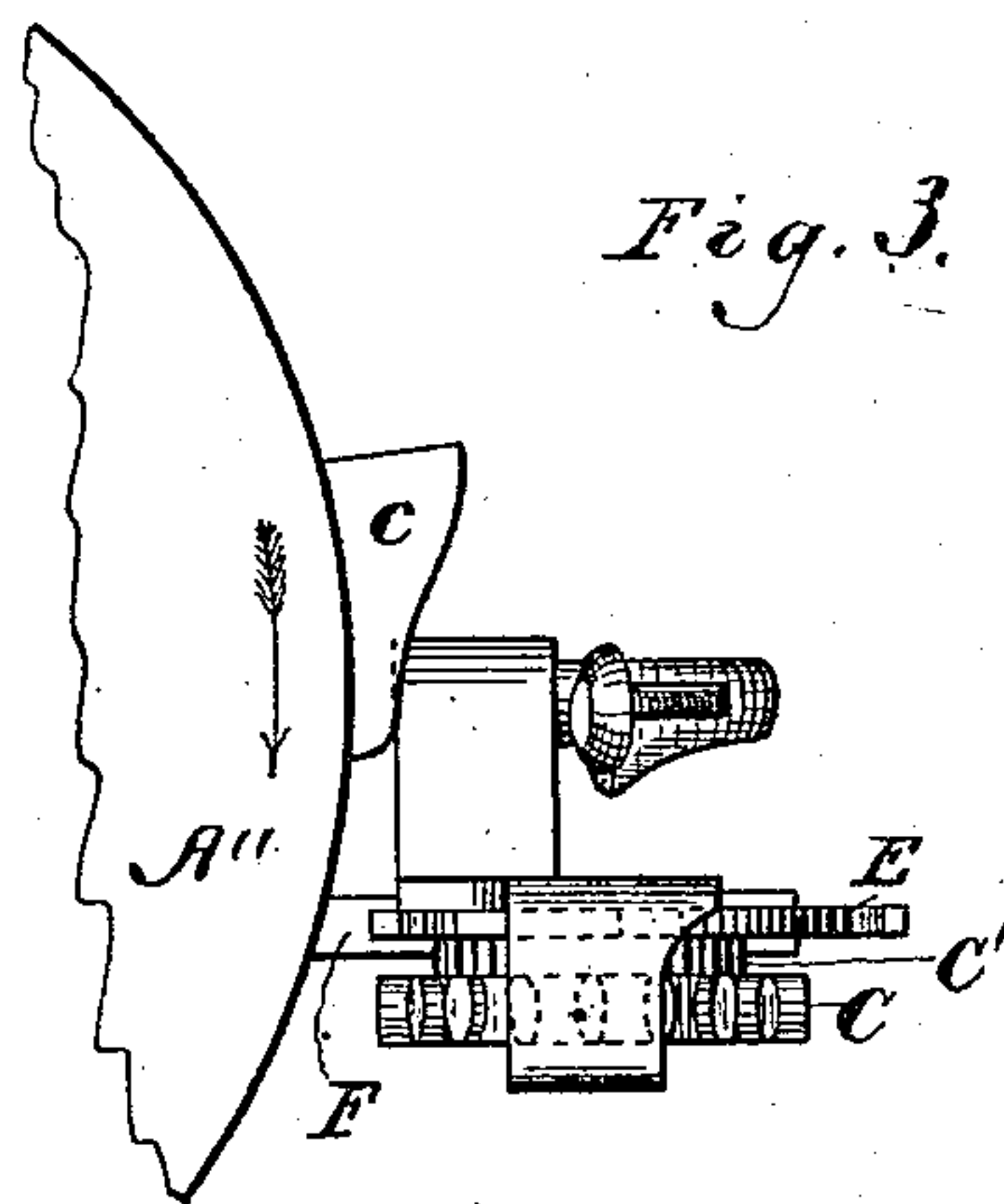
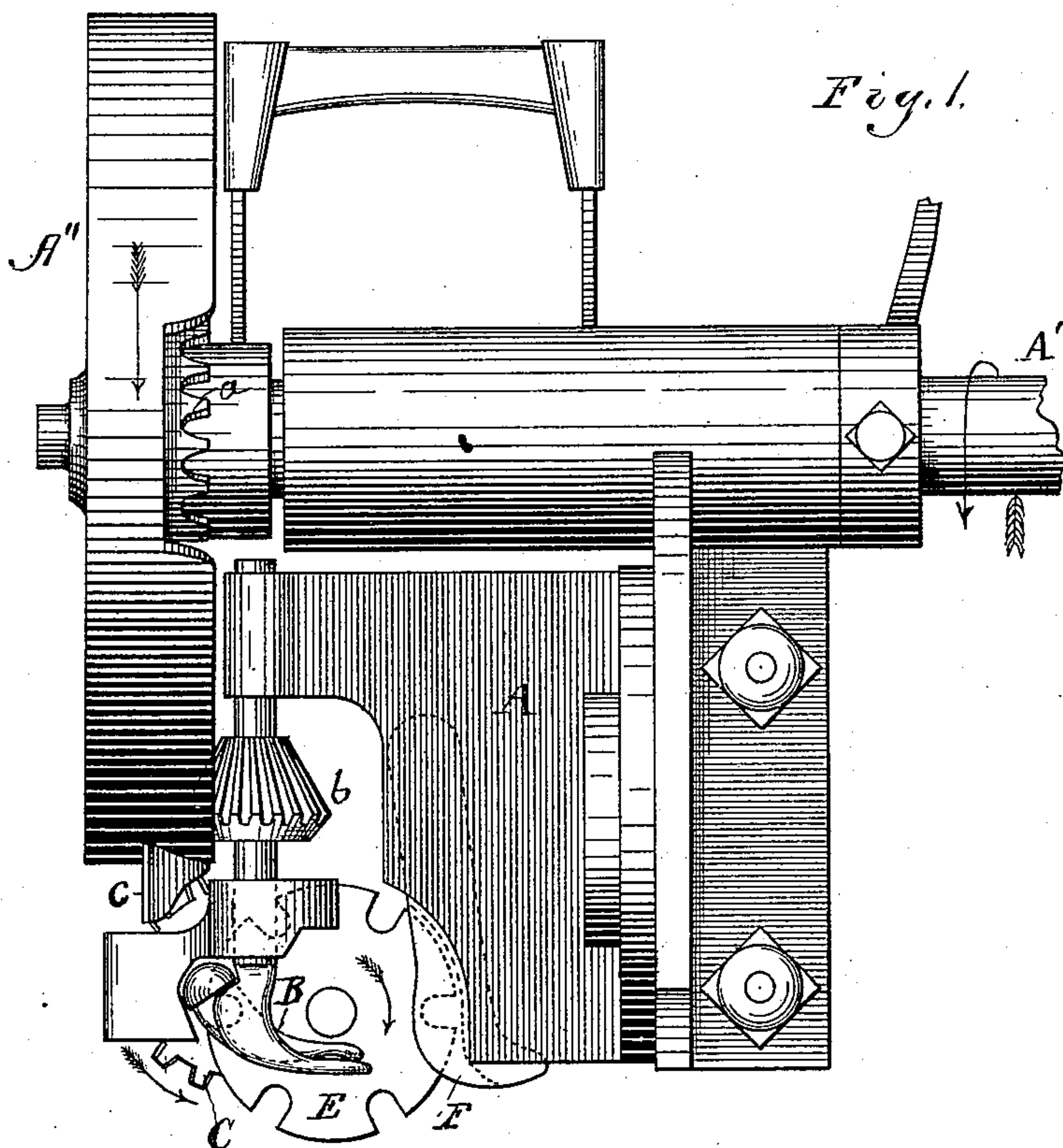
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C. COLAHAN.

CORD HOLDER FOR GRAIN BINDERS.

No. 308,062.

Patented Nov. 18, 1884.



Witnesses,  
*Henry Thompson*  
*W. L. Baker*

Inventor,  
*Chas. Colahan*

(Model.)

2 Sheets—Sheet 2.

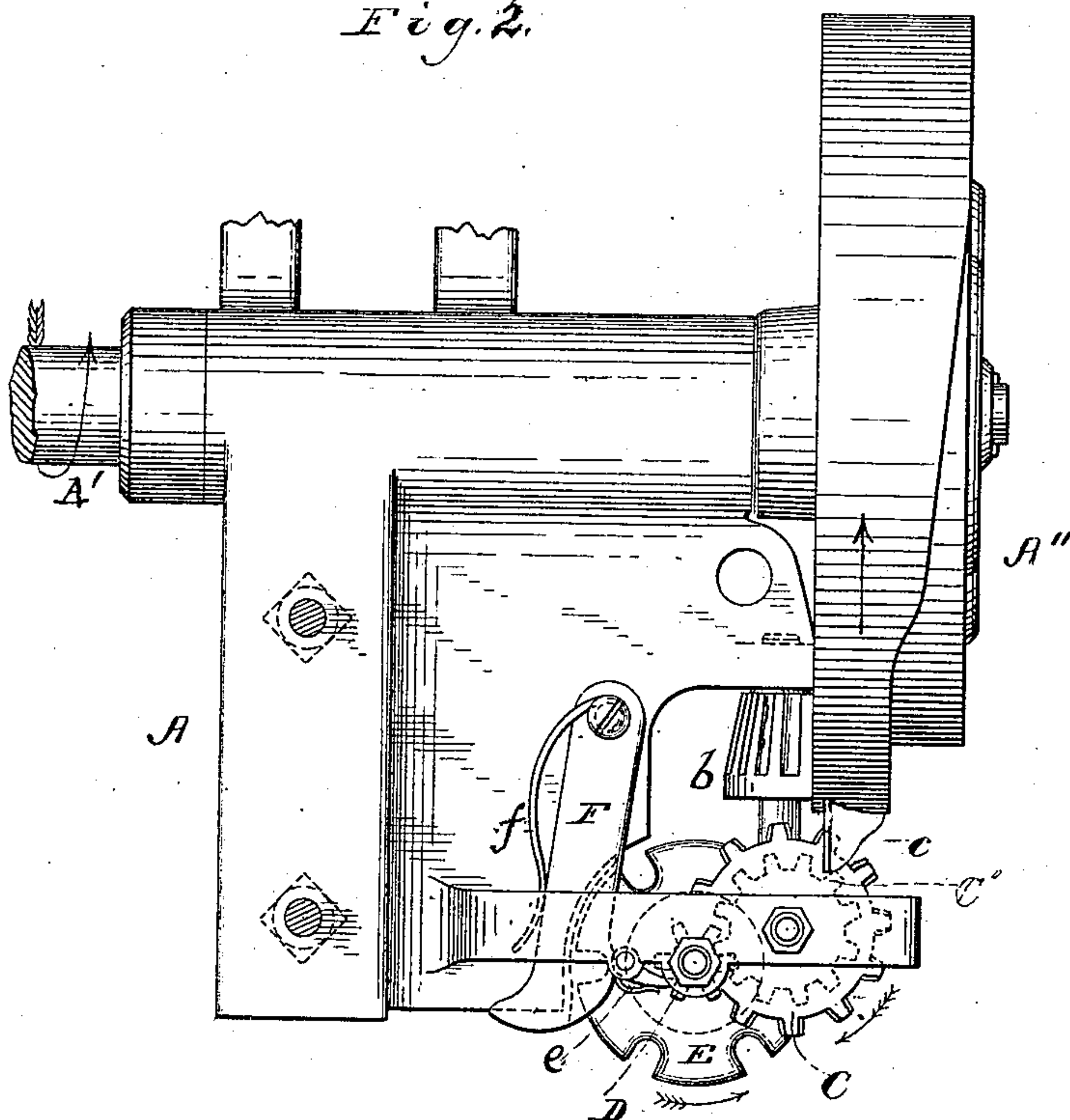
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*Fig. 2.*



Witnesses.

*H. C. Frankfurter,*  
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Inventor.

*Chas. Colahan*



# UNITED STATES PATENT OFFICE.

CHARLES COLAHAN, OF CLEVELAND, OHIO.

## CORD-HOLDER FOR GRAIN-BINDERS.

SPECIFICATION forming part of Letters Patent No. 308,062, dated November 18, 1884.

Application filed June 27, 1883. (Model.)

*To all whom it may concern:*

Be it known that I, CHARLES COLAHAN, of Cleveland, Cuyahoga county, Ohio, have invented certain new and useful Improvements in Cord-Holders for Automatic Grain-Binders, of which the following is a specification, having reference to the accompanying drawings.

My invention relates to cord-holders for modern grain-binders, and is particularly adapted to the so-called "Appleby Binder."

My invention consists in the construction and arrangement of parts for operating the cord-holding disk, as hereinafter described, and particularly pointed out in the claims.

The object of my invention is to simplify the construction of such devices and decrease their cost, while at the same time their durability is increased and they are less liable to get out of order.

In the drawings, Figure 1 is a plan or inner side view of a portion of a binder showing my improvement. Fig. 2 is a view of the opposite side of the same. Fig. 3 is a detail view showing the holder, the intermediate wheels, and a portion of the side of the knotter-driving wheel with the wedge-shaped projecting tooth; and Fig. 4 is a detail view showing a portion of the rim of the wheel with the inclined tooth and the intermediate gear-wheel.

A is a plate or bracket outside of the usual breast-plate and carried by the binder-shaft A', which is suitably supported on the frame of the binder. Upon this shaft is secured the cam and gear wheel A".

B is the knotter or tying-bill, pivoted on the plate A and provided with pinion b. The wheel A" is provided with segment-gear a, which engages with the pinion b at the proper time to rotate the tying-bill. So far the parts do not differ materially from those in an ordinary machine of the Appleby type.

E is the usual notched holding-disk, which, co-operating with the usual spring-pressed grooved jaw or clamping-plate, F, holds the end of the binding-cord which leads from the binder-arm. (Not shown.) The holding-disk

is provided with the pinion D, and the spring-pawl e prevents the disk from rotating backward.

C' is a gear-wheel meshing with the pinion D and secured to or forming part of the gear-wheel C. The teeth of the latter wheel are of elliptical form, as shown, or, if desired, they may be of angular form. These teeth are engaged at the proper time by the wedge-shaped projection or tooth c, secured in an inclined or spiral direction on the periphery or rim of the cam and gear wheel A". By this means the holding-disk E is intermittently moved or partially rotated the distance from one notch to the next at each revolution of the cam and gear wheel A", and it is retained in position by the spring-pawl e.

It will be observed that the holding-disk is rotated in a direction opposite to that in which it usually is rotated in the machines referred to, and that the co-operating clamping-plate F is located on the opposite side—that is to say, at the side of the disk opposite the cam and gear wheel.

Having thus described my invention, what I claim is—

1. In a grain-binder, the combination of the cam and gear wheel A", its inclined tooth c, the cord-holding disk E, provided with the pinion D, and the intermediate gear-wheels, C C', substantially as and for the purpose set forth.

2. The combination of the tying-bill, the gear and cam wheel A", the inclined tooth c on the periphery of said wheel, the intermediate gear-wheels, the holding-disk E, and the yielding holder-plate F, located at the side of said disk opposite the cam and gear wheel, substantially as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my name.

CHAS. COLAHAN.

Witnesses:

FREDERICK C. GOODWIN,  
HENRY S. TOWLE.