

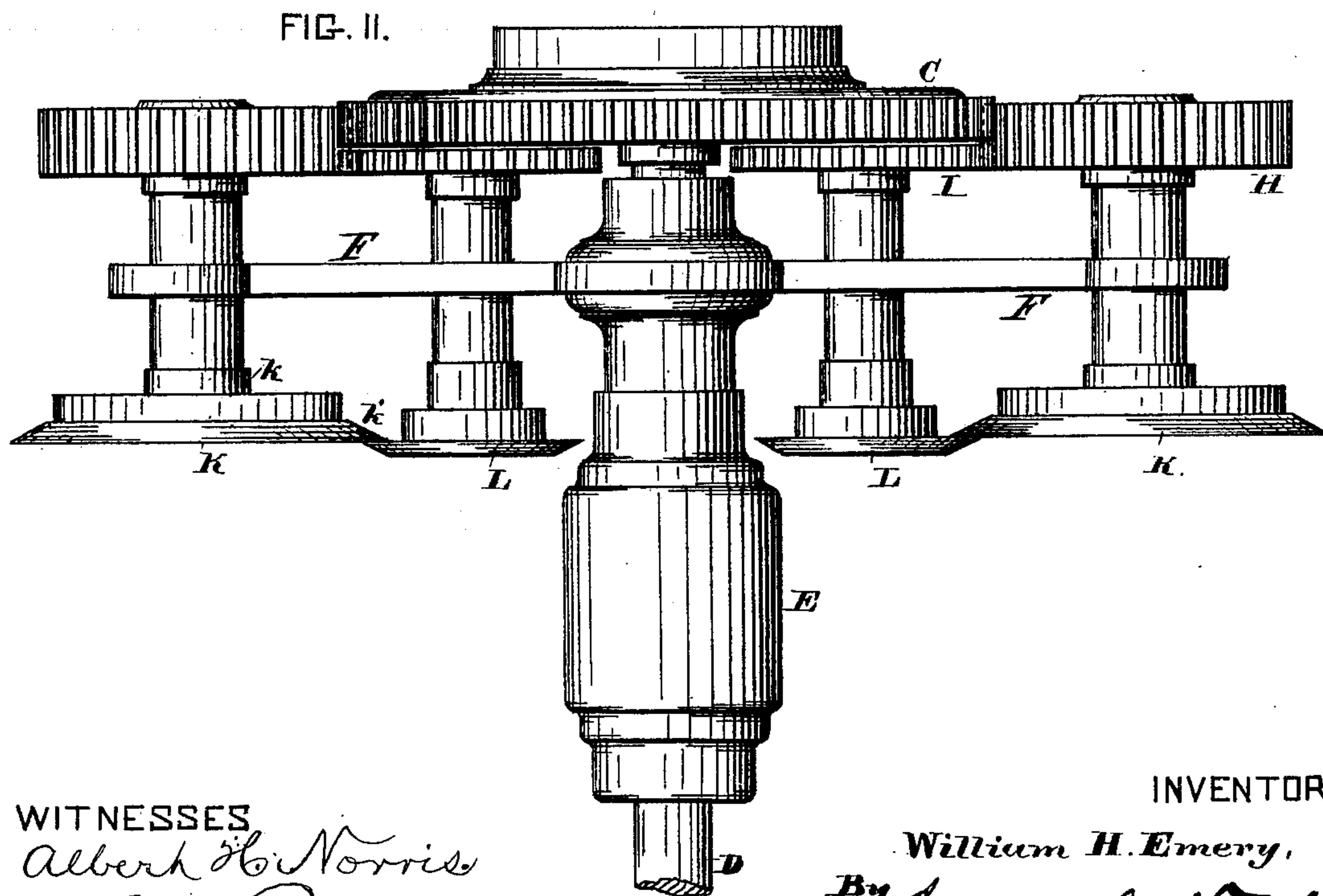
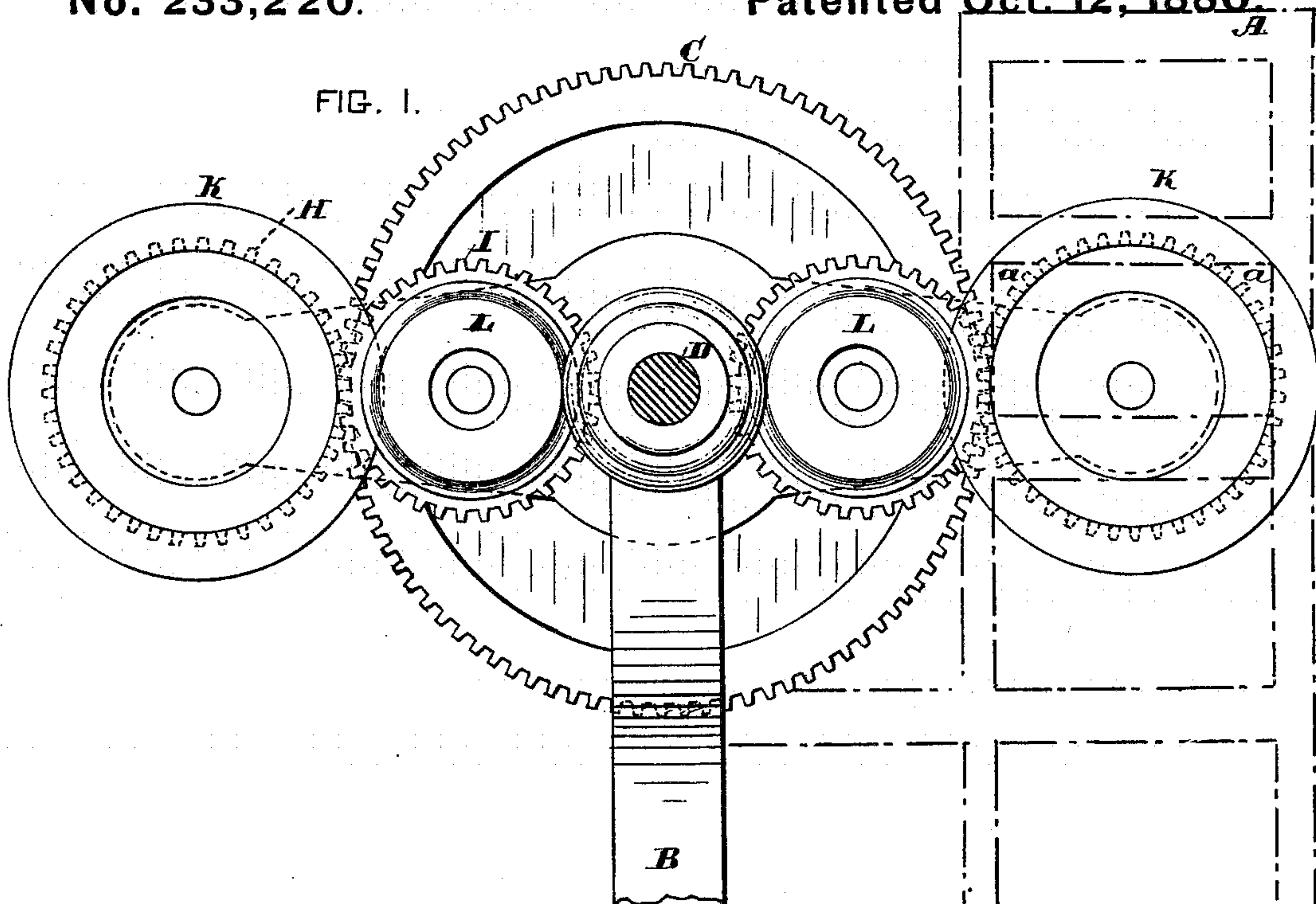
(No Model.)

3 Sheets—Sheet 1.

W. H. EMERY.
Tobacco Cutting Machine.

No. 233,220.

Patented Oct. 12, 1880.



WITNESSES

Albert H. Norris

J. A. Rutherford

INVENTOR,

William H. Emery,

By

James L. Norris,

Att'y.

(No Model.)

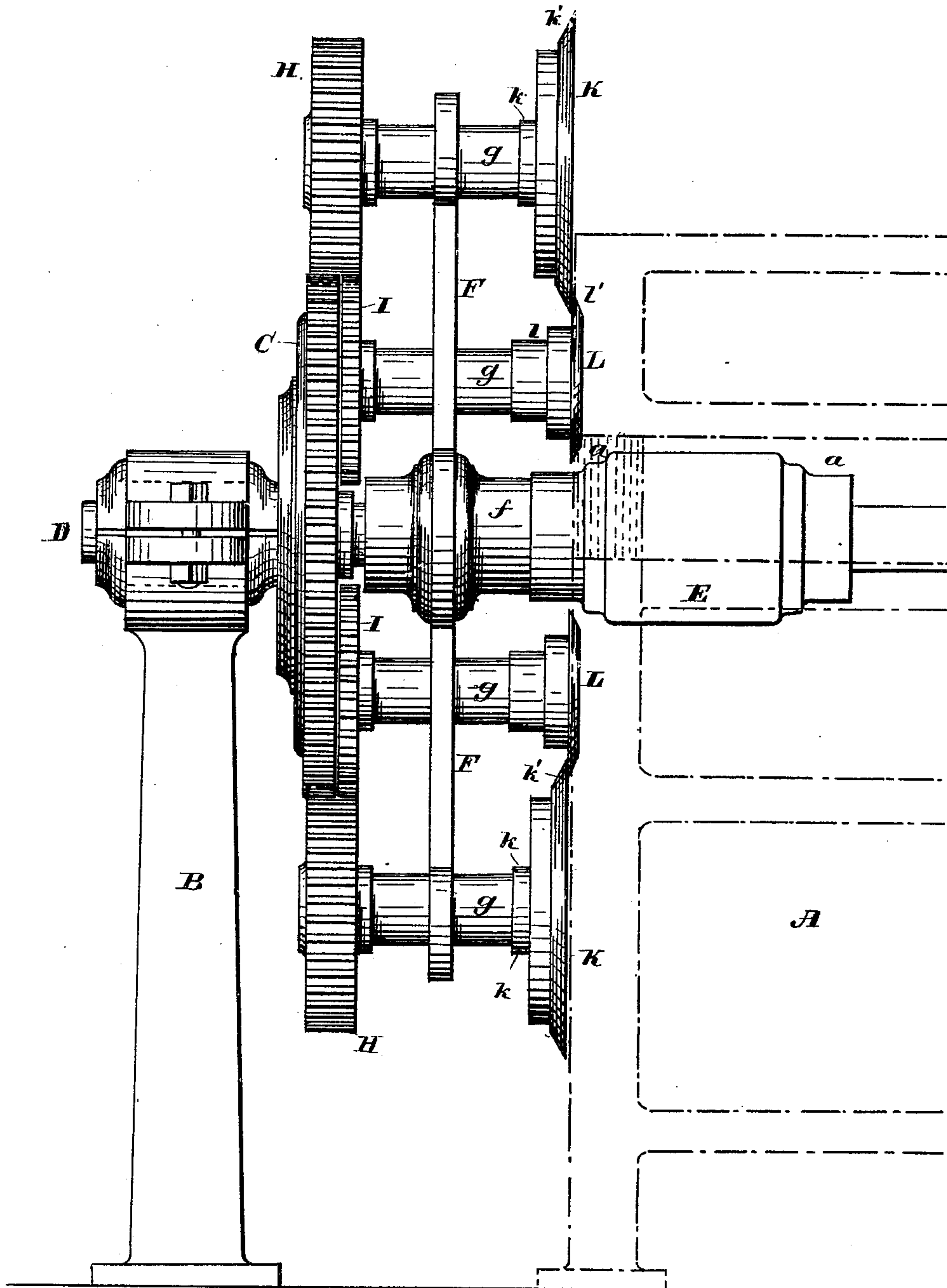
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FIG. III.



WITNESSES:

Albert H. Norris,
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INVENTOR:

William H. Emery,
By *James L. Norris,*
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(No Model.)

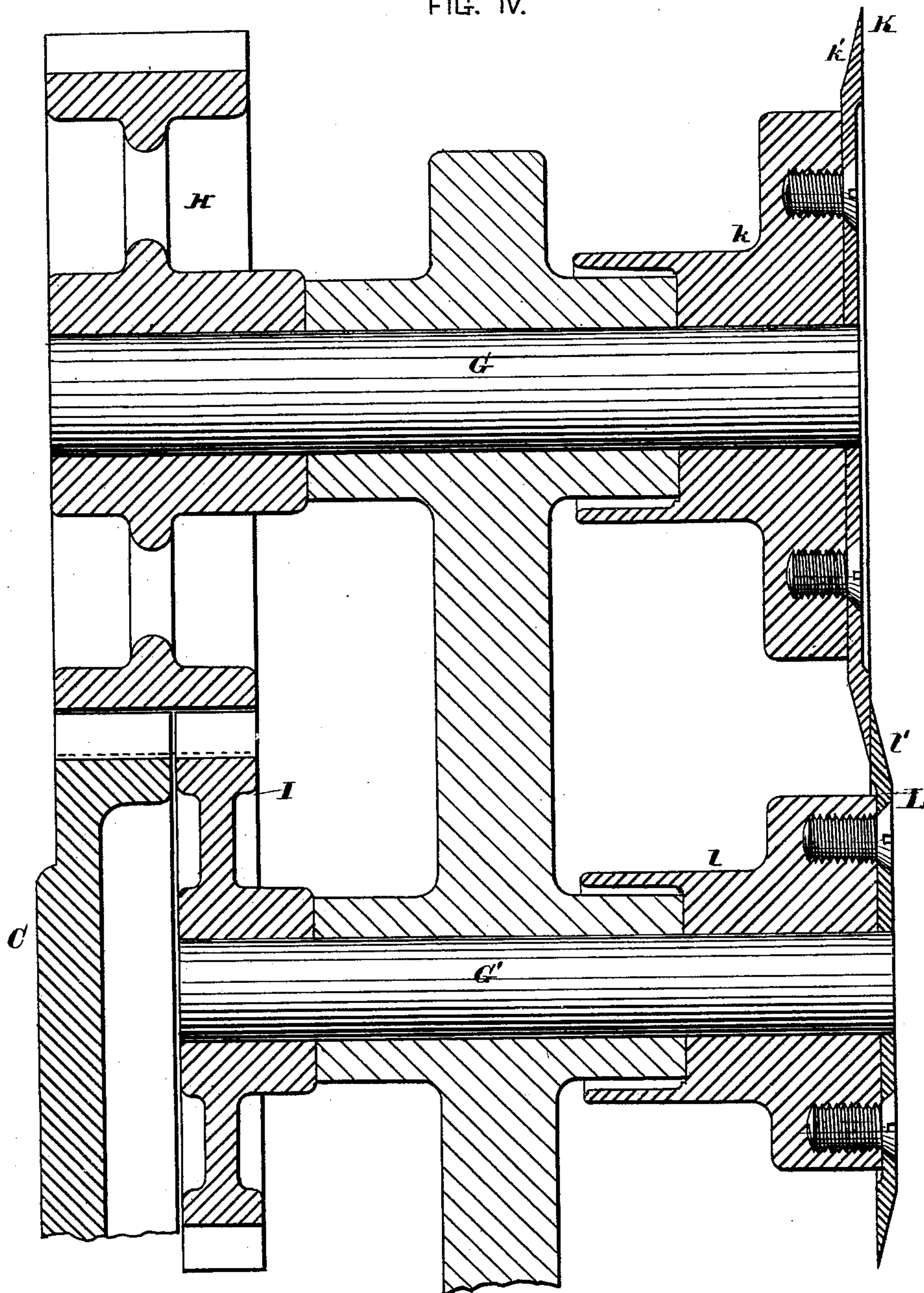
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FIG. IV.



WITNESSES:

Albert H. Norris,
J. A. Rutherford

INVENTOR:

William H. Emery.

By *James L. Norris,*
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UNITED STATES PATENT OFFICE.

WILLIAM H. EMERY, OF BROOKLYN, NEW YORK, ASSIGNOR TO CHARLES G. EMERY, OF SAME PLACE.

TOBACCO-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 233,220, dated October 12, 1880.

Application filed July 13, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. EMERY, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Machines for Cutting Tobacco, of which the following is a specification.

My invention relates especially to that class of tobacco-cutters used in the manufacture of fine-cut tobacco, its object being to obviate the loss of time in sharpening the knives of such machines.

It consists in the combination, in a machine for cutting tobacco and other substances with one or more radial arms projecting from a rotary shaft or hub, of one or more cutting-disks mounted upon said arm or arms, and arranged to travel edgewise in a circular orbit, and also to rotate about an axis or axes, one or more sharpening-disks mounted also upon said arm or arms and arranged to rotate simultaneously with and in marginal contact with said cutting disk or disks and a common prime mover and suitable intermediate connections, whereby the revolving motion is communicated to said shaft or hub and radial arm or arms, and the rotary motion about their axes is communicated to said cutting and sharpening disks. The continuous rotary motion of the sharpening-disks in marginal contact with the cutting-disk keeps the latter always sharp and in condition for effective work, and obviates the necessity of stopping the machine for sharpening.

In the accompanying drawings, Figure I is a front elevation of my improved tobacco-cutter, the frame being shown in broken lines. Fig. II is a plan view of the knives and their operating mechanism detached. Fig. III is an edge view of the knives mounted in proper relation to a frame shown in broken lines. Fig. IV is a sectional view illustrating the construction and mounting of the knives, and the means for rotating the same.

The letter A indicates the frame of a tobacco-cutting machine, which may be constructed in any known or suitable manner, and provided with a chamber having an opening, *a*, through which the cheese or cake of com-

pressed tobacco is fed into the path of the knives by any suitable mechanism. In front of the frame is a standard, B, having fixed at its upper end a stationary toothed wheel, C, through the center of which passes one end of a rotary shaft, D, the other end of which is journaled in a suitable bearing, E, arranged upon the frame, preferably, though it might be supported by another standard and both standards mounted on a suitable base independent of the frame A. Between the wheel C and bearing E a revolving arm, F, provided with a hub, *f*, is fixed centrally upon the shaft D, and this arm, on each side of its hub, is provided with two transverse tubular bearings, *g*, in which are mounted spindles G G'. Each of the outer spindles, G, has fixed upon one end a broad-faced gear-wheel, H, meshing with the wheel C, and the somewhat shorter inner spindles, G', carry gear-wheels I, meshing with the wheels H. On their ends opposite their gear-wheels the spindles G carry cutting-disks K, which are secured to hubs *k*, fixed upon said spindles. These disks are beveled on their inner faces, as shown at *k'*, to form sharp edges, while their outer faces are flat. The spindles G' carry somewhat smaller disks L, similarly secured to hubs *l*, but are beveled on their outer faces, as at *l'*, while their flat inner margins fit close against the margins of the disks K.

The shaft D may have rotary motion communicated to it by any suitable means.

My cutting apparatus may be applied to various machines now in use, and the driving mechanism arranged to conform to the style of such machines. The said shaft D is so arranged that when it is caused to rotate and the arm F revolved the cutting-disks K will travel across the opening *a*, through which the tobacco is fed, and cut the same.

As the arm F moves, motion is communicated from the stationary wheel C to the wheels H, and from the latter to wheels I, so that the disks K and L are caused to rotate in contact with each other in opposite directions, thus sharpening each other, and obviating the necessity of stopping the machine for the purpose of guiding the cutters.

What I claim is—

1. In a machine for cutting tobacco and other substances, the combination, with one or more radial arms projecting from a rotary shaft or hub, of one or more cutting-disks mounted
5 upon said arm or arms, and arranged to travel edgewise in a circular orbit, and also to rotate about an axis or axes one or more sharpening-disks, mounted also upon said arm or arms,
10 and arranged to rotate simultaneously with and in marginal contact with said cutting disk or disks, and a common prime mover and suitable intermediate connections, whereby the revolving motion is communicated to said shaft
15 or hub and radial arm or arms, and the rotary motion about their axes communicated to said

cutting and sharpening disks, substantially as described.

2. The combination, with the stationary gear-wheel C, of the revolving arm F, having mounted thereon the spindles G and G', carrying the gear-wheels H and I, the cutting-disks K, and the sharpening-disks L, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM H. EMERY.

Witnesses:

JOHN D. LITTLE,
H. H. DENNIS.