

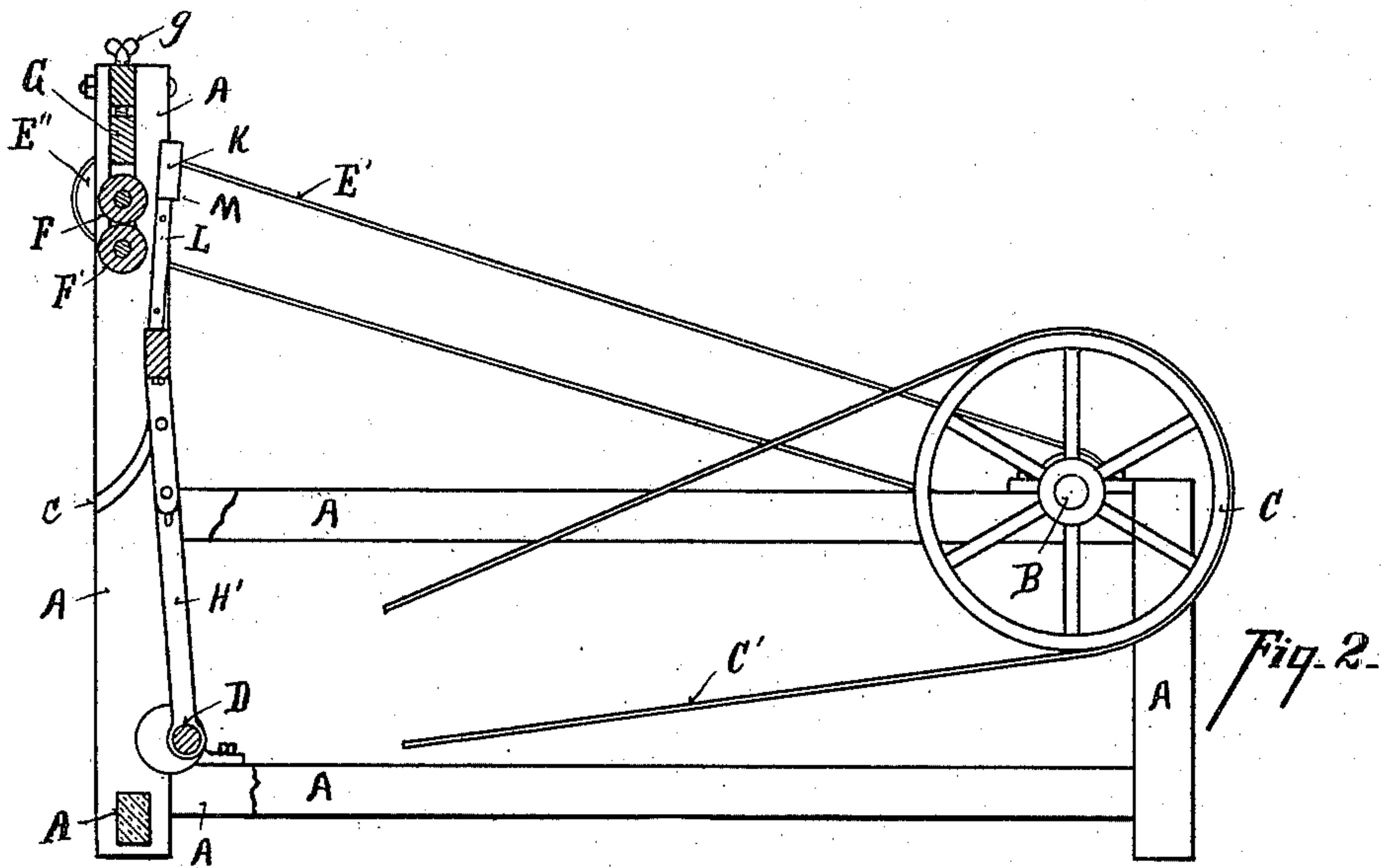
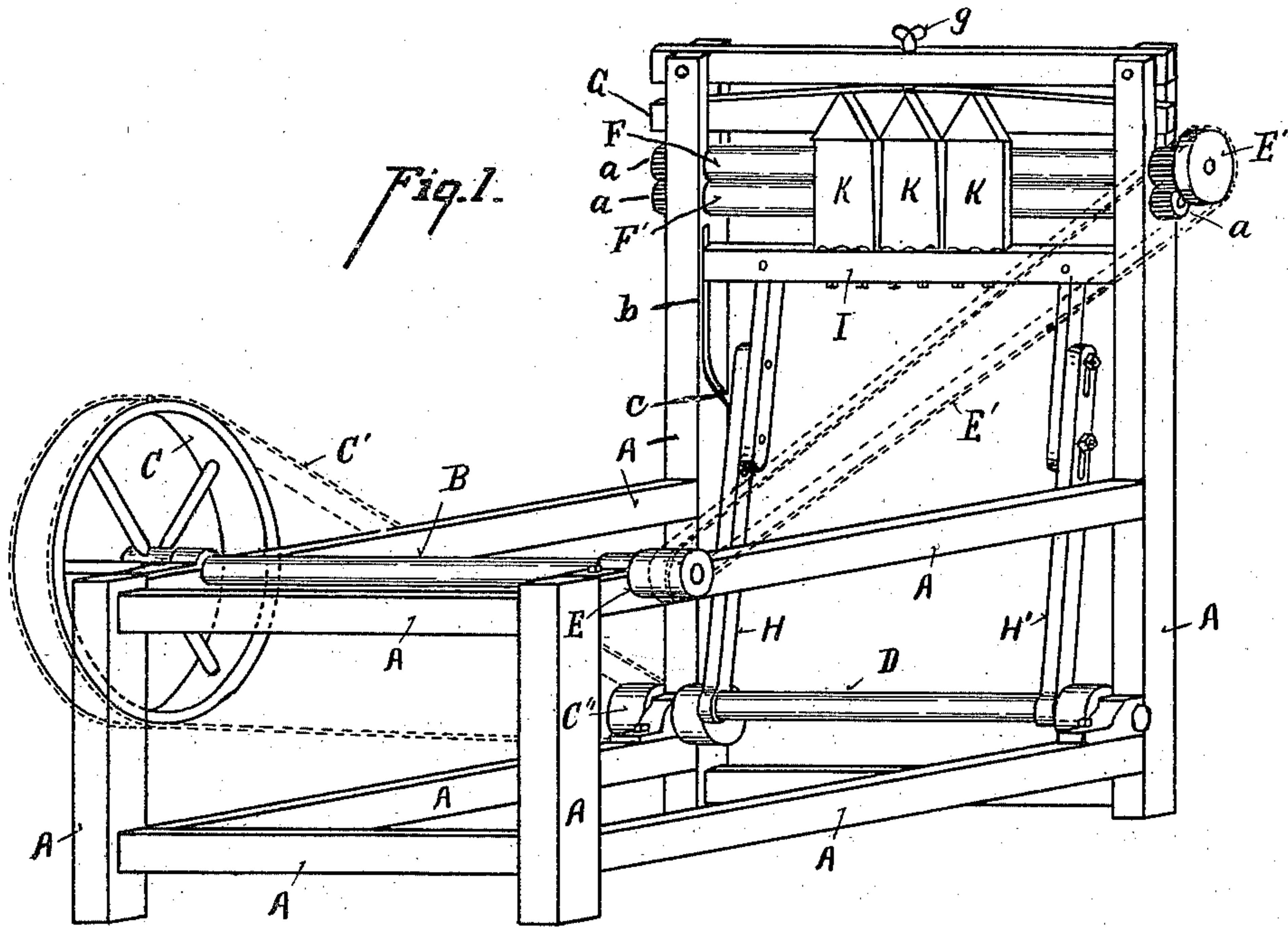
(No Model.)

2 Sheets—Sheet 1.

D. BARKER.
TOBACCO STEMMING MACHINE.

No. 598,471.

Patented Feb. 1, 1898.



Witnesses

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Oliver D. Haizer

Inventor

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by Wm. V. Boyd
Attorneys

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Fig. 3.

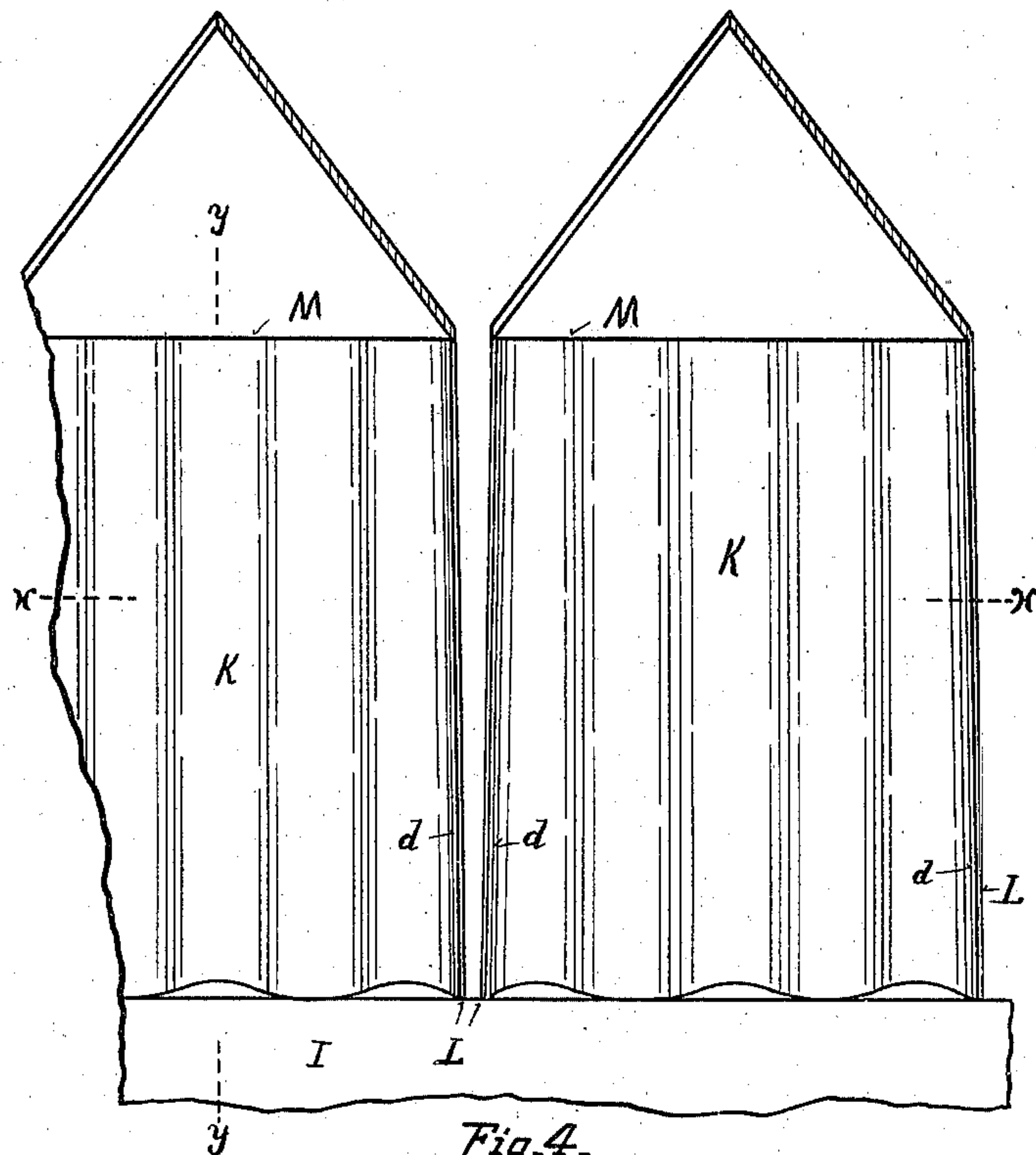
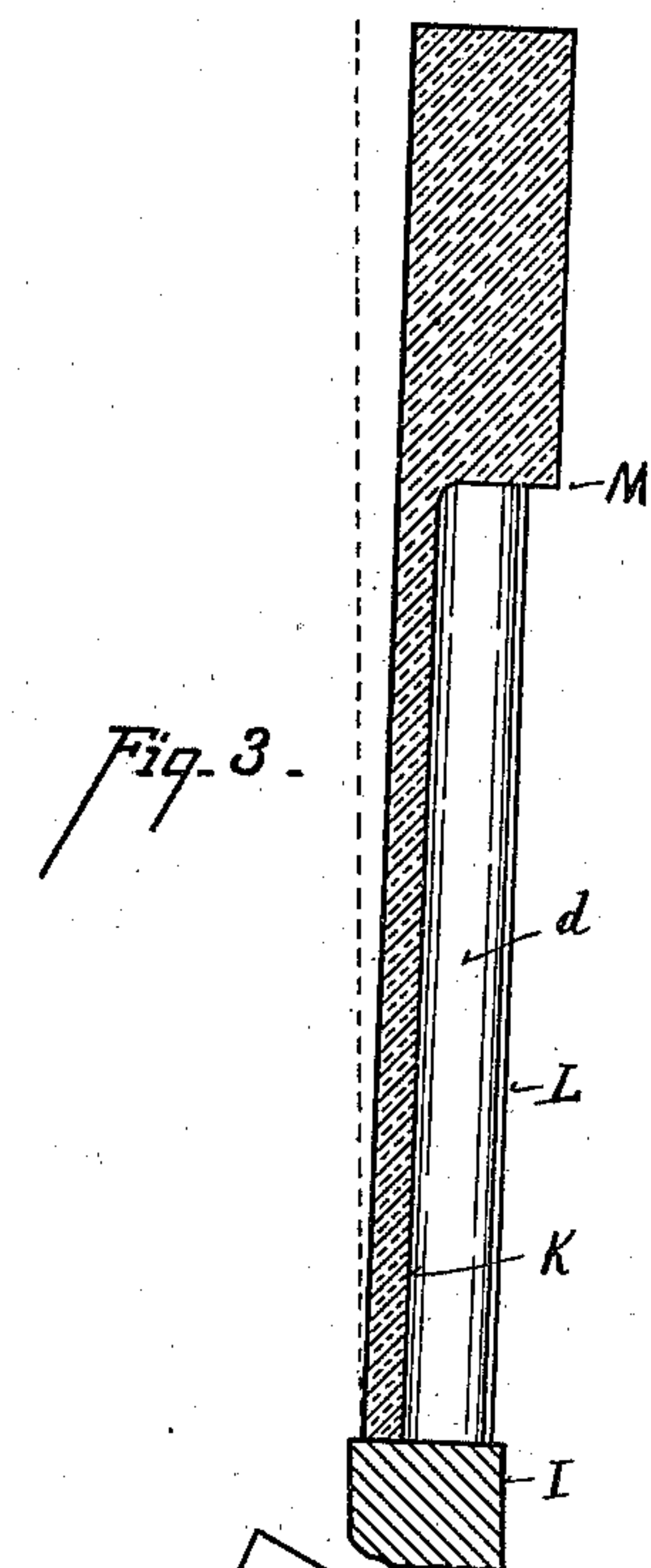


Fig. 4.

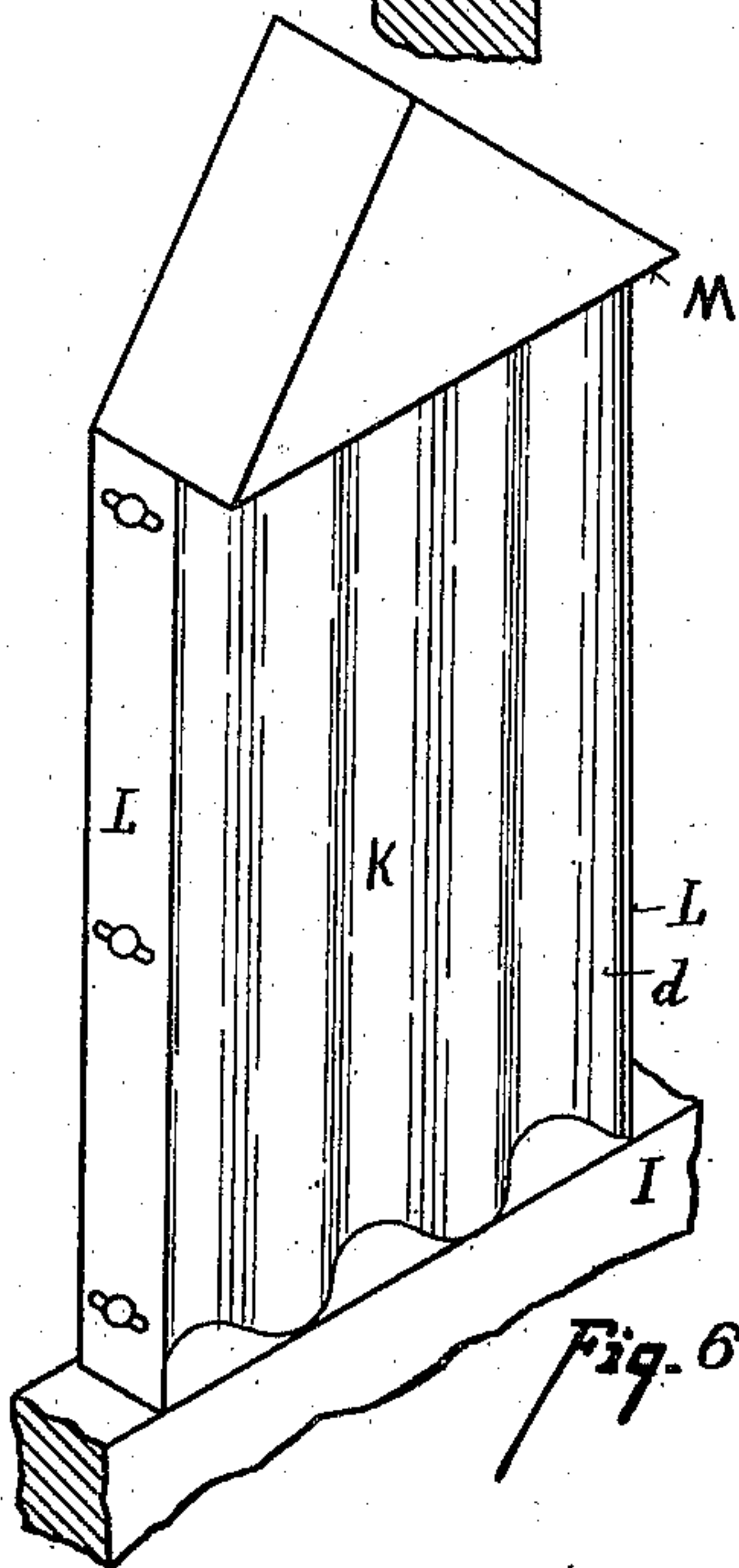


Fig. 6.

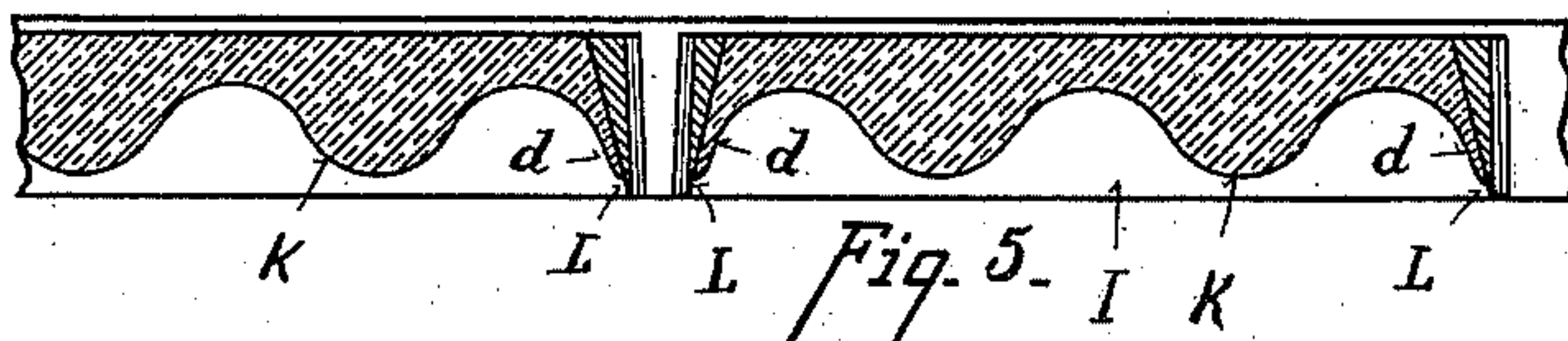


Fig. 5.

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UNITED STATES PATENT OFFICE.

DELL BARKER, OF MADISON, INDIANA, ASSIGNOR OF ONE-THIRD TO HENRY C. HARRISON, OF SAME PLACE.

TOBACCO-STEMMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 598,471, dated February 1, 1898.

Application filed August 16, 1897. Serial No. 648,423. (No model.)

To all whom it may concern:

Be it known that I, DELL BARKER, residing at Madison, in the county of Jefferson and State of Indiana, have invented certain new and useful Improvements in Tobacco-Stemming Machines, of which the following is a specification.

The object of the present invention is to provide a new and improved machine for stemming tobacco-leaves; and to accomplish this object the invention consists in the features of construction and in the combinations or arrangements of parts hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view of the preferred form of construction of my invention. Fig. 2 is a side elevation of Fig. 1. Fig. 3 is a section on line *y y*, Fig. 4. Fig. 4 is a front elevation of a pair of reciprocating knives. Fig. 5 is a cross-section on line *x x*, Fig. 4. Fig. 6 is a perspective view of one of the knife-stocks and knives attached.

In the accompanying drawings, the stripping-cutters are shown as reciprocating, which is the preferred form of construction.

A represents the frame of the machine; A', the posts; B, the main driving-shaft; C, the driving-pulley, and C', a belt or sprocket-chain passing over the pulley C'', driving the crank-shaft D.

E represents a pulley driving a belt or sprocket-chain E', engaging over the pulley E'', driving the rollers F F'. These rollers are preferably rubber and are given positive uniform motion by means of cog-gears *a a* on each end of rollers F F'.

G represents the pressure-bar; *g*, a set-screw for regulating the pressure of said bar, so as to control the tension of rolls F F'.

H H' represent pitmen driven by the crank-shaft D and operating the cross-head I. This cross-head travels vertically in ways *b*, formed in the frame of the machine upon each side. Said guideways are curved at the lower ends *c*, passing out the sides of the posts, so as to allow the cross-head to be readily taken out and inserted. Upon this cross-head is mounted a series of knife-stocks K. These stocks are preferably made of considerable width, and their top ends are V-shaped, with the

apex upward, so as to form guides for feeding the stems of tobacco down between the cutters. In the preferred form of construction said stocks are inclined forward or away from the rolls. (See Fig. 3.) This forward inclination tends to prevent the tobacco from rising on the upward stroke of the cutters, and also gives a shear cut.

L represents cutter-blades attached to the inner edges of said stocks.

d represents gages on the knife-stocks against the inner face of the cutter-blade. The cutter-blades project but a slight way beyond said gages. These gages accomplish a very important result. The tobacco-leaf is very thin, and a very small amount of edge projection for the cutters is required for severing the leaf from its stem. When a slight projection only is made, the knives have but little or no tendency to cut into the stems, which are sometimes of irregular shape. The stems are drawn through between the knives by the bite of the rolls F F', and with the knives arranged as here shown there is no danger of the stem being severed in the operation of stripping.

M represents a guard or forward projection of the knife-stock, which prevents the leaf from rising and passing over the top of the stock. It will be observed that in the preferred form shown in Fig. 4 the cutting edges of the two knives are inclined so as to form a wider space between the cutters at the top than at the bottom. This is for the purpose of allowing the thickest portion of the stem to be readily fed between the cutters. It will also be observed that the forward edges of the knives are nearer together than their rear edges.

Mode of operation: The machine is set in operation, the knife-stock and knives being continuously reciprocated vertically, and the stem grasping and feeding rolls F F' are continuously revolved. The tobacco-leaf is presented with the projecting end of the stem inserted between the tops of the knife-stocks, and as they drop down the stem is grasped by the rolls and drawn through, the traveling cutters severing the leaf by scraping or cutting it upon each side of the stem, which is drawn clear through the rollers, while the

knife stocks and guards keep the leaf from being drawn through, and it falls down out of the way, thus being stripped from the stem and separated. I have found that by this mechanism the stems can be stripped from the leaves when the tobacco is quite moist or wet with but very little waste of the tobacco and without danger of severing the stems or tearing the leaf.

10 Having described my invention, I claim—

1. In a tobacco-stemming machine, the combination with a pair of rolls, and means for revolving them, of a pair of reciprocating vertically-arranged, parallel-spaced knives provided with gages to prevent severing the stems, knife-stocks having guards to prevent the tobacco-leaf from being drawn through the rolls, and means for operating said knives, substantially as specified.

20 2. In combination with a pair of revolving rolls, a pair of reciprocating, vertically-arranged, parallel-spaced knives traveling in front of the rolls, guards attached to the knife-stocks for preventing the leaves from being drawn through the rolls, and means for operating the knives, substantially as specified.

3. In combination with a pair of revolving rolls, a pair of reciprocating vertically-arranged, parallel-spaced knife-stocks, knife-blades adjustably secured to the inner edges of said knife-stocks, guards carried by the knife-stocks to prevent the tobacco-leaf from passing through the rolls, gages for the knife-blades, and means for operating the rolls and knives, substantially as specified.

4. In a tobacco-stemming machine employ-

ing a pair of revolving rolls adapted to grasp the stems of tobacco-leaves, a pair of inclined knife-stocks with vertically-arranged, parallel-spaced knife-blades attached to their inner edges, and mechanism for reciprocating said knife-stocks, substantially as specified. 40

5. In a tobacco-stemming machine employing a pair of revolving rolls, a pair of reciprocating vertically-arranged, parallel-spaced knife-stocks, and knife-blades attached to the inner edges of said stocks, and inclined so as to form a V-shaped space between the edges of the knives, substantially as specified. 45

6. In a tobacco-stemming machine the combination of a pair of rollers, a pair of traveling cutters set with their faces adjacent to each other with a space between them sufficiently wide to allow the passage of a tobacco-stem, means for operating said knives, and a gage applied to the outside face of each knife, substantially as specified. 50

7. In a tobacco-stemming machine, the combination of a pair of rollers, a pair of reciprocating, vertically-arranged, parallel-spaced knife-stocks having V-shaped guards at the top of the stocks, knives attached to the inner edges of said stocks, and means for reciprocating said knives, substantially as specified. 55

In testimony whereof I have hereunto set my hand. 65

DELL BARKER.

Witnesses:

OLIVER B. KAISER,
W. R. WOOD.