

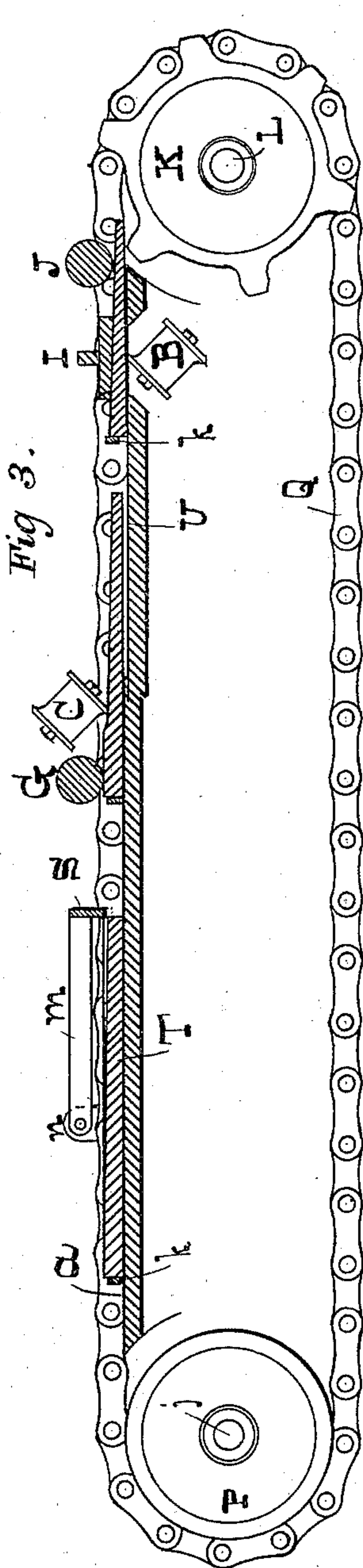
(No Model.)

2 Sheets—Sheet 1.

E. H. N. CLARKSON.  
SHINGLE PLANING MACHINE.

No. 474,544.

Patented May 10, 1892.



*Fig 3.*

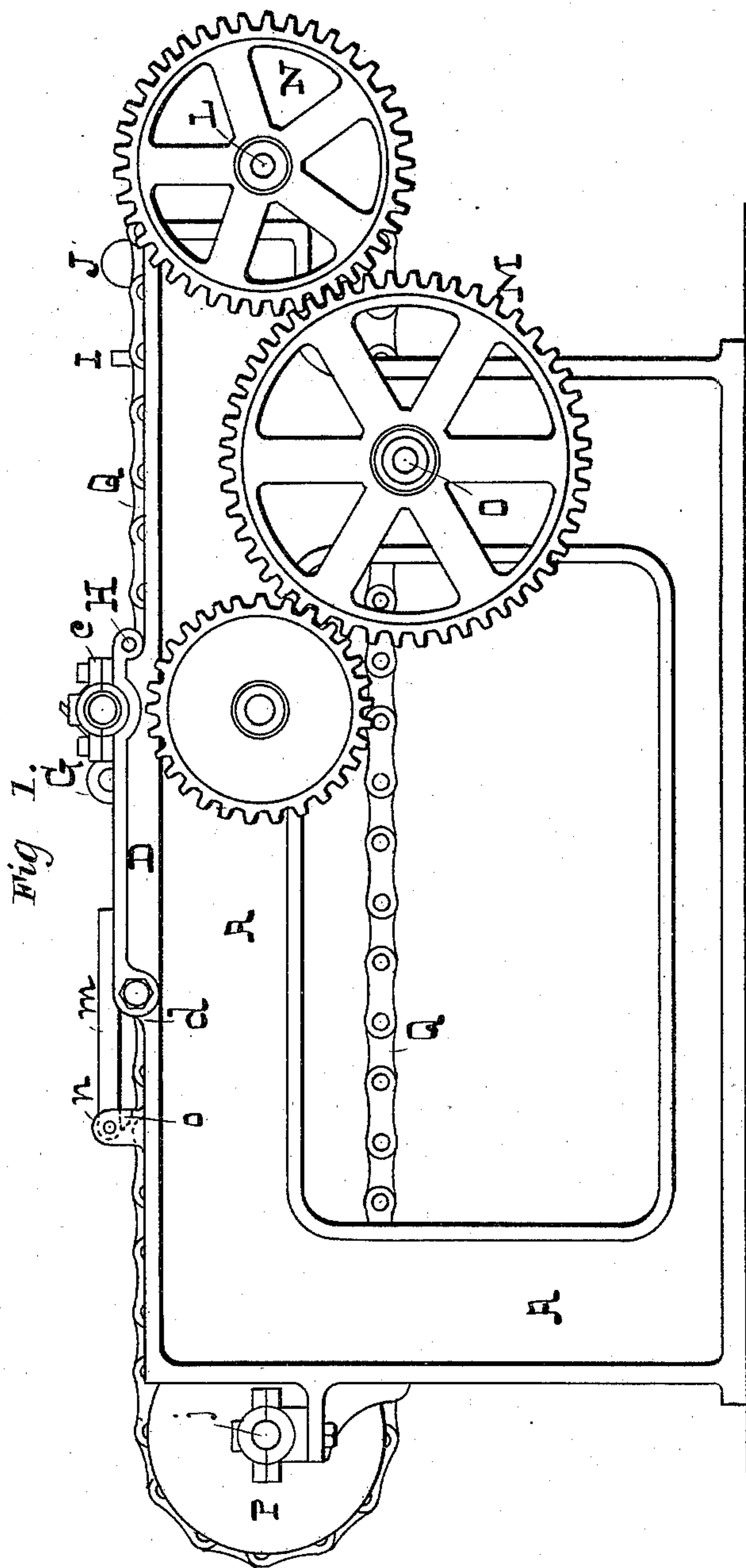


Fig 7.

-WITNESSES-

Dan'l Fisher  
 George A Hensley

-INVENTOR-

Edward H. R. Clarkson,  
by G. W. T. H. H. H. H.  
Attys.

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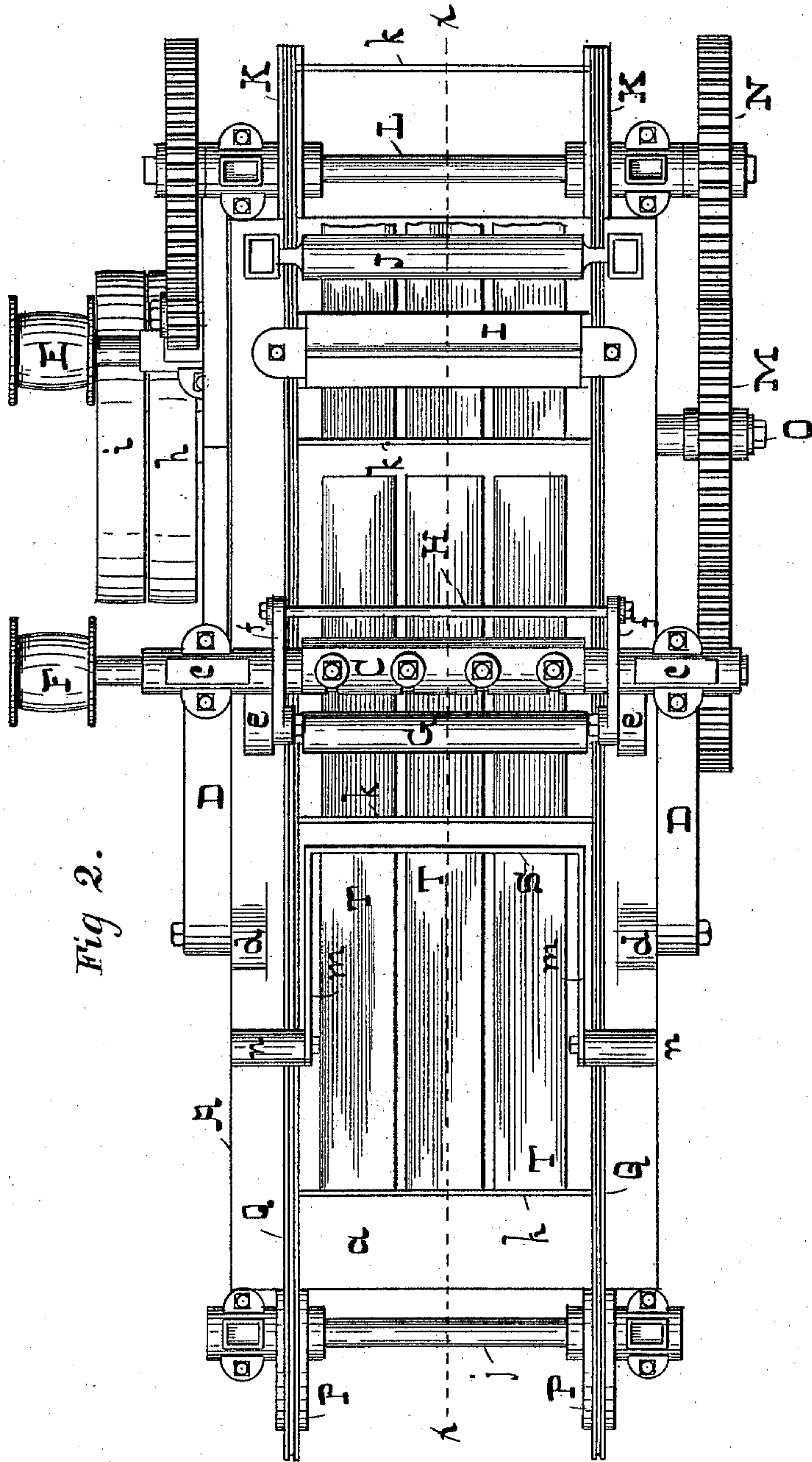


Fig 2.

-WITNESSES-

*Dan'l Fisher*  
*George A. Hemley*

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# UNITED STATES PATENT OFFICE.

EDWARD H. N. CLARKSON, OF BALTIMORE, MARYLAND.

## SHINGLE-PLANING MACHINE.

SPECIFICATION forming part of Letters Patent No. 474,544, dated May 10, 1892.

Application filed August 8, 1891. Serial No. 402,064. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD H. N. CLARKSON, of Baltimore, Maryland, have invented certain Improvements in Shingle-Planing Machines, of which the following is a specification.

In the description of the machine which follows reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a side elevation of the improved shingle-planing machine, and Fig. 2 a plan of the same. Fig. 3 is a longitudinal section of Fig. 2, taken on the dotted line *x x*, with certain parts thereof removed.

Referring to the drawings, A is the frame of the machine, and *a* the bed of the same, upon which the shingles rest during the planing operation.

B is the lower planing-stock, supported in suitable boxes (not shown) in the frame A.

C is the upper planer-stock with its spindles sustained in boxes *c*, formed in the ends of two levers D, fulcrumed in lugs *d* on the frame A. The levers D are gradually elevated by cam mechanism, (not shown,) whereby the shingles are planed to a taper, as is common. (See Letters Patent No. 159,790, granted February 16, 1875, to P. D. Burgher.)

E and F are the driving-pulleys of the planer-stocks.

On one side of the bearing-boxes *c* are lugs *e*, in which rest the gudgeons of a roller G. Other lugs *f* on the opposite side of the said bearing-boxes are united by a bar H, whereby the upper planer-stock, with its attachments, may be raised. The roll G and the cutters of the upper planer-stock are so arranged that when the roll rests on a shingle to be planed the cutters project slightly below the surface of the shingle a distance equal to the thickness of the cut to be taken.

I is a presser situated directly over the lower planer-stock to hold the shingles while their under sides are being dressed, and J is a roll under which the shingles pass after the planing operation is completed.

K K are sprocket-wheels on a shaft L, driven through the medium of the gears M and N from the driving-shaft O, which is provided with a tight and loose pulley denoted by *h* and *i*.

P P are sheaves on the shaft *j*, and Q Q are endless chain belts, which run on the sprocket-wheels K and the sheaves P. The chains Q are connected by bars *k*, whereby in the operation of the machine the shingles are carried longitudinally of the bed and past the cutting-knives.

The machine thus far described is of ordinary construction and embodies no part of the present invention.

S is a bar at the end of two levers *m*, which are hinged to lugs *n* on the bed of the machine. In the present case the bar S and the levers *m* are formed from one piece; but whether this construction is preserved or the levers made separate is a matter of no importance. The levers *m* rest on lugs *o*, and the bar S is thereby prevented from falling closer to the bed than a prescribed distance, which is slightly greater than the greatest thickness of the rough shingles. By being hinged it can rise in case any part of the shingle should be thicker than the thickness allowed for.

The rough shingles to be planed are laid on the bed between the levers *m*, with their front ends slightly in the rear of the bar S.

By reference to Fig. 3 it will be seen that a portion of the bed *a* forward of the cutters of the upper planer-stock C is depressed and the depression denoted by U. By this arrangement the bars *k* may pass over the cutters of the stock B, which project somewhat above the upper surface of the depressed portion U of the bed without coming in contact with them.

Supposing that the machine is in operation and a number of rough shingles in three separate piles are stacked on the bed in the position shown by the shingles marked T, the first bar *k* that comes in contact with the shingles pushes the lower ones from under the others, which are held by the bar S. The three shingles T are carried under the cutters of the upper planer-stock C, and after their upper sides are planed they fall to the depressed portion U of the bed *a*, and are then carried toward the end of the machine, and in this movement are dressed at the under side by the cutters of the lower stock B, the bars *k* passing over the said cutters without striking them. As the lowest shingles T are removed from the stacks the others fall, and the lowest shingles

in the three stacks take the places of the ones  
T. These are carried by the next bar *k*, as  
before described. By the employment of the  
bar S the feeding of the shingles is simplified,  
5 and the speed of the machine may be in-  
creased beyond that used when shingles are  
applied separately to the bars *k*, which are  
carried by the endless chains.

I claim as my invention—

- 10 1. In a shingle-planing machine, the combi-  
nation of endless belts carrying bars which  
traverse the bed of the machine, and a bar  
which is hinged to the bed of the machine and  
is adapted to fall to a certain distance from the

said bed and also adapted for elevation, sub- 15  
stantially as and for the purpose specified.

2. In a shingle-planing machine, a portion  
of the bed of the machine situated over the  
lower planer-stock depressed below the re-  
maining portion, in order that the bars which 20  
convey the shingles longitudinally of the bed  
may pass the planer-stock without coming in  
contact therewith, substantially as specified.

EDWARD H. N. CLARKSON.

Witnesses:

JNO. T. MADDOX,  
DANL. FISHER.