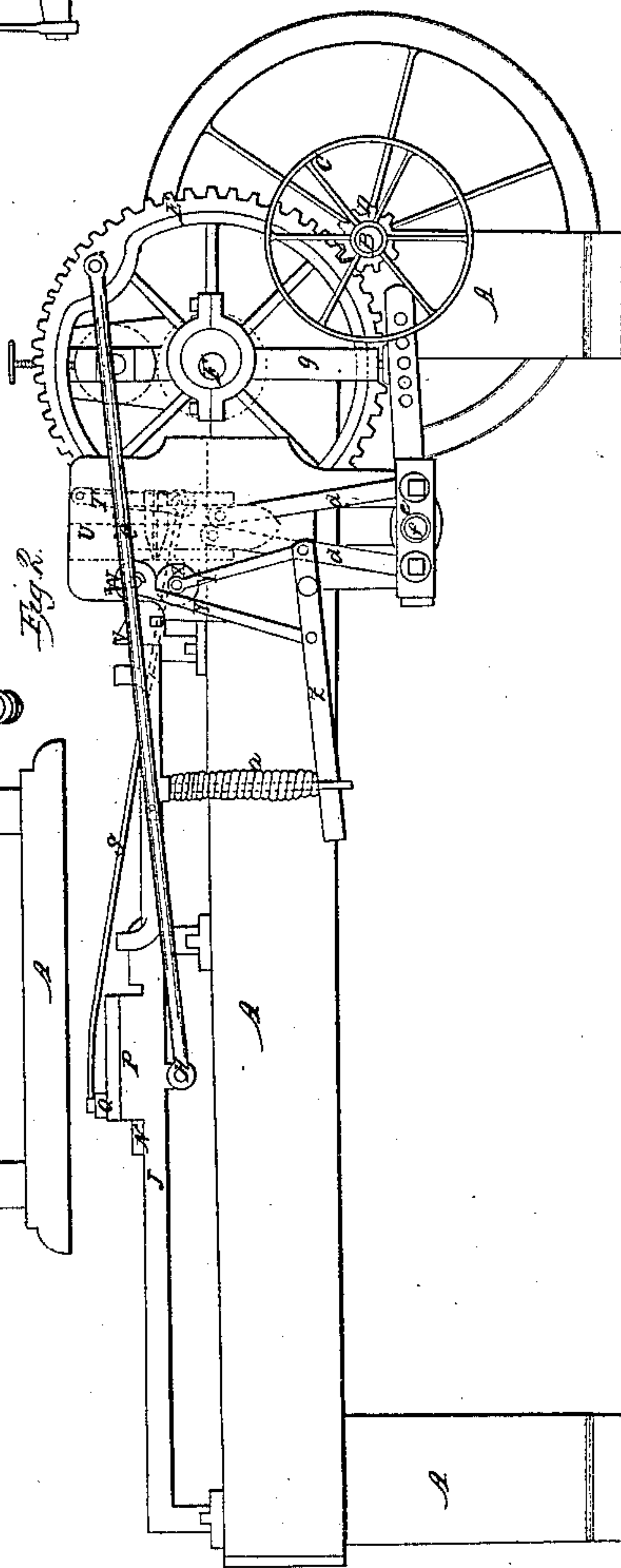
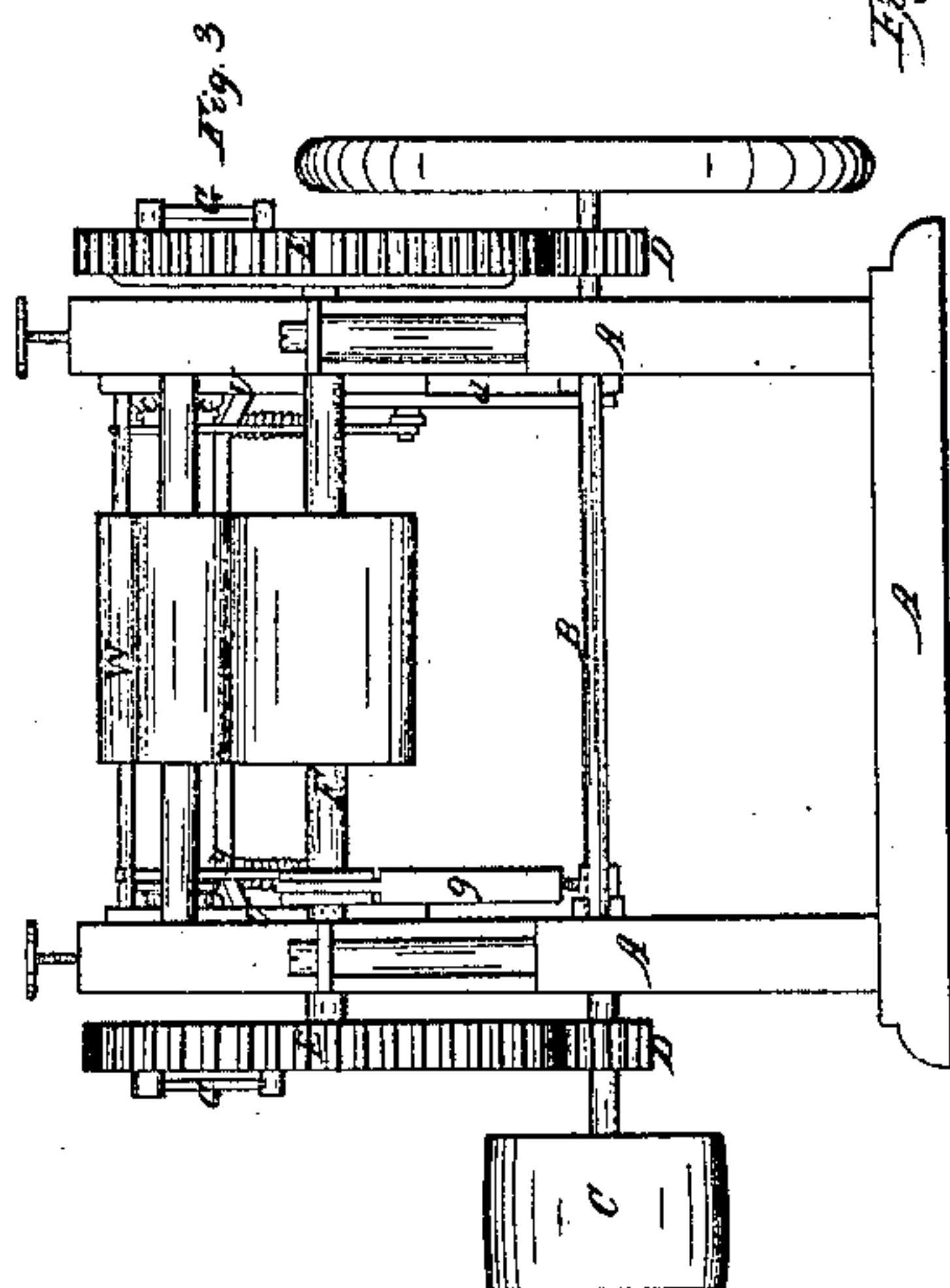
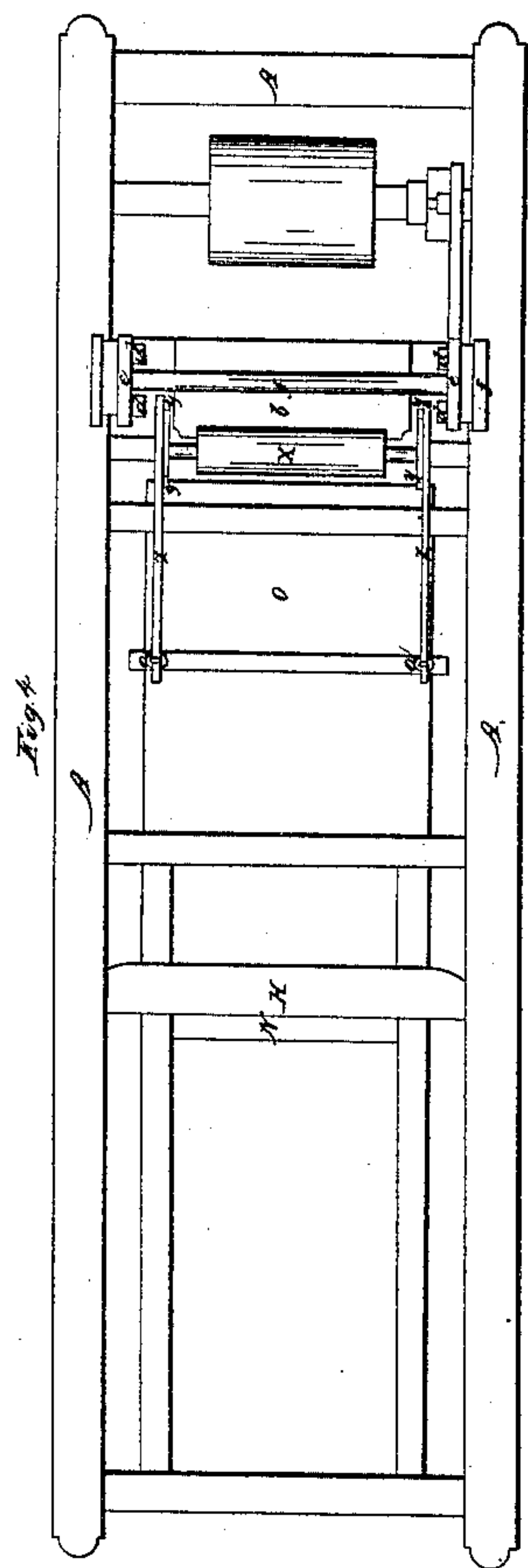
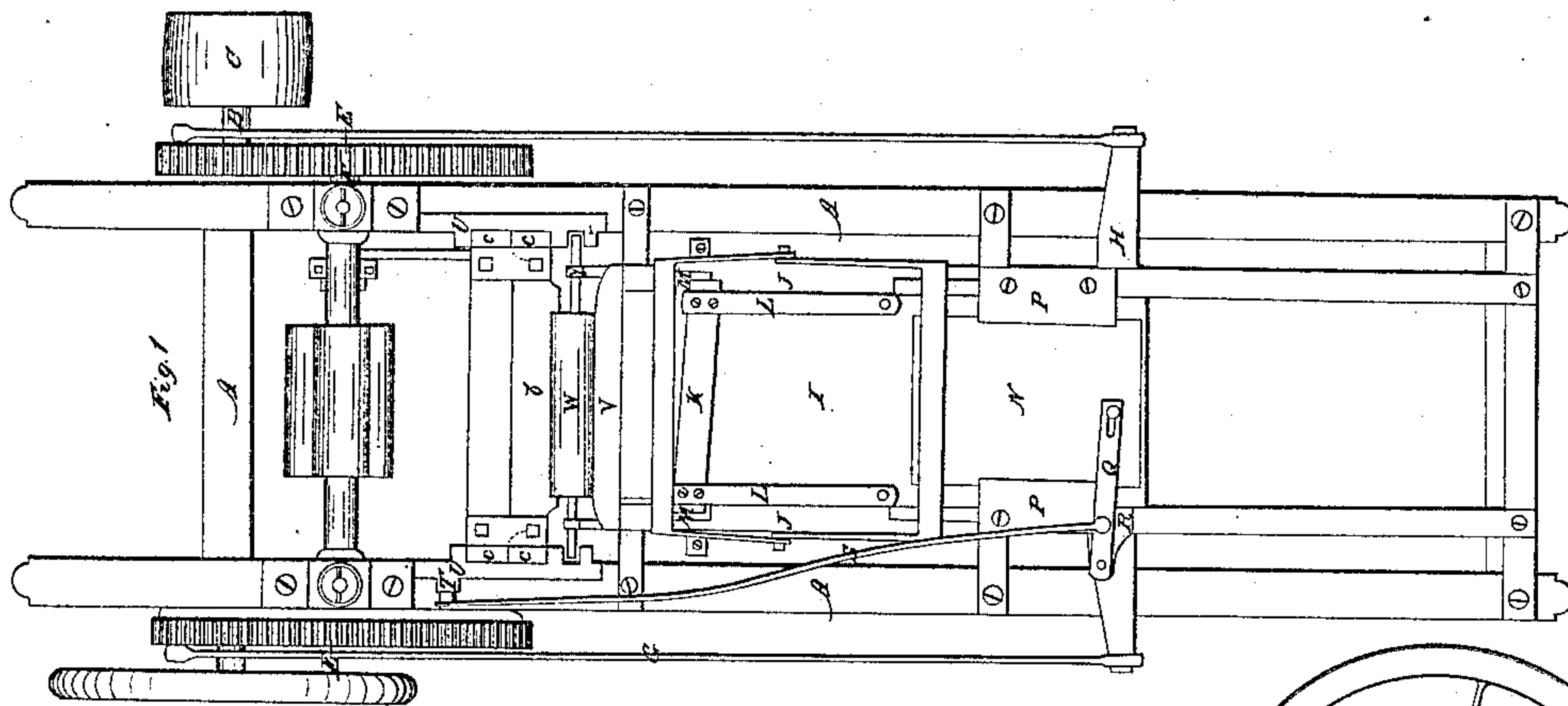


W. Stoddard,
Cutting Shingles.

2 Sheets Sheet 1.

N^o 9,456.

Patented Dec. 7, 1852.



W. Stoddard,

2 Sheets, Sheet 2.

Cutting Shingles.

N^o 9,456.

Patented Dec. 7, 1852.

Fig. 3.

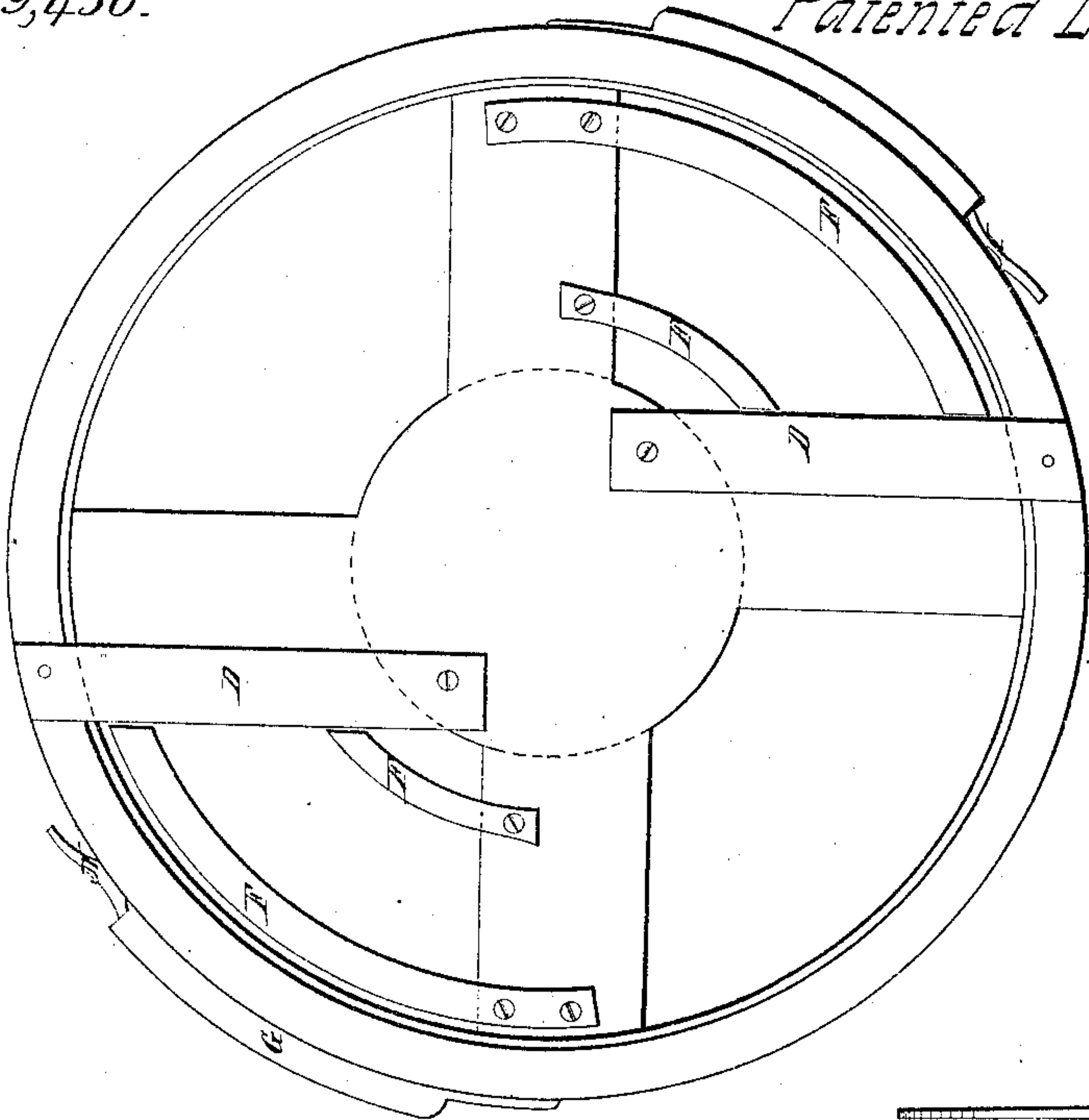


Fig. 5.

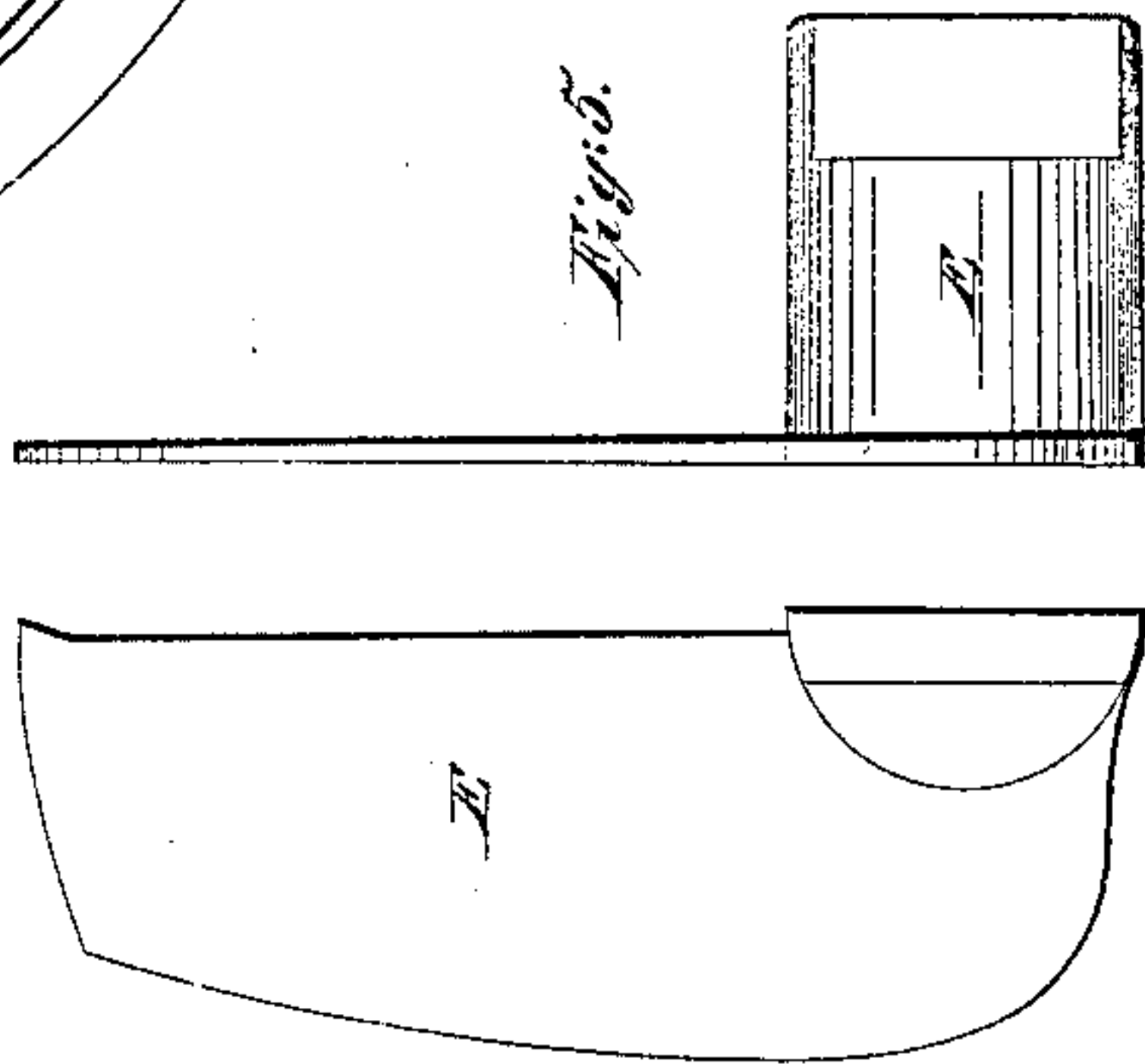
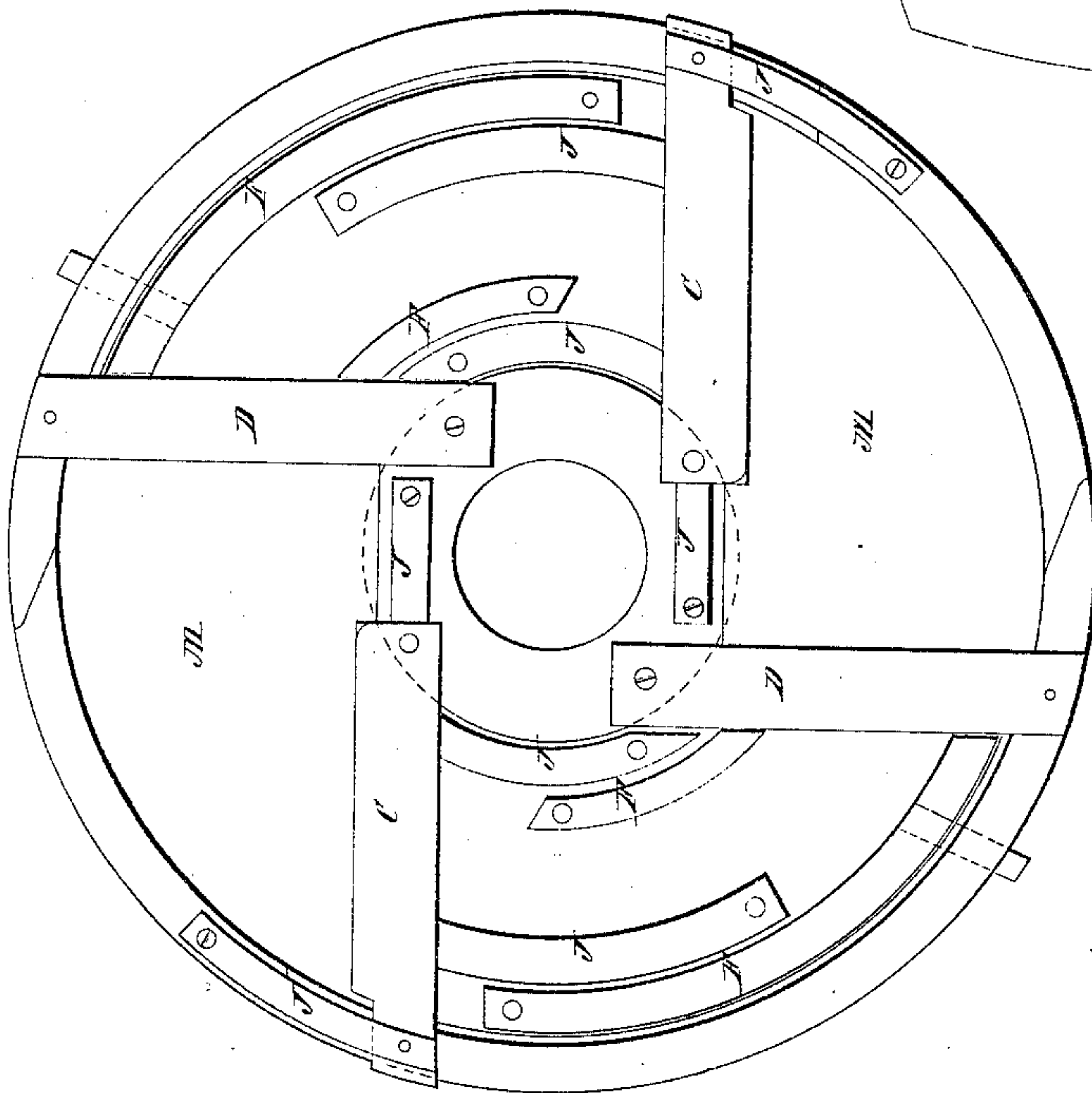


Fig. 4.



UNITED STATES PATENT OFFICE.

WILLIAM STODDARD, OF LOWELL, MASSACHUSETTS.

SHINGLE-MACHINE.

Specification of Letters Patent No. 9,456, dated December 7, 1852.

To all whom it may concern:

Be it known that I, WILLIAM STODDARD, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Machines for Rifting and Planing Shingles, and that the following description, taken in connection with the accompanying drawings hereinafter referred to, form a full and exact specification of the same, wherein I have set forth the nature and principles of my invention by which it may be distinguished from others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying drawings represent my improvements.

Figure 1, is a top view of my shingle machine. Fig. 2, is a side and sectional view of the same. Fig. 3 is a front end view, and Fig. 4 is view of the under side of my machine.

I will now proceed to describe its operation and construction; which is as follows; viz:—

A, A, A is the framework, B is the driving shaft, and C the driving pulley.

D, D, are small gears on the driving shaft B, operating on the crank gears E, E, on the lower roller shaft F. The connecting rods G, G, are attached at one end to the gears E, E, and at the other end to the cross bar H; the driving plate I, being attached to the cross bar H, and guided by the guide rails J, J. The guide rails J, J, are attached to cross bars and fastened to the frame work A, A. The rifting knife K, being attached by means of the springs L, L, to the driving plate I. The knife K being raised to the right height to split the piece for the shingle by means of inclined planes M, M, and passing forward so as to clear the front end of the block, thus enabling the block to fall on to the driving plate I. The rifting knife K, being at the required height to split the piece from the block, is now carried through the block by the backward motion of the driver I, to the back end of the block; when the short driver N comes forward and pushes the piece split off for the shingle, forward of the back of the knife K, when it drops down on to the bed piece O, in front of the driving plate I. The short driver N, is guided by the side plates P, P, the lever Q, being attached to

the driver N, at one end, and to a projection R at the other end; said projection being fastened to the guide rail J; the connecting rod S, being fastened to the lever Q, a sufficient distance from the fulcrum of the lever to give the motion required to the driver N. The other end of the rod S, being bent at right angles plays in the grooves made in the gears E, on the inside, the connecting rod S being held in its proper place by a swinging arm T, attached to the rod S, at one end, and to the guide piece U, at the other end. The piece split from the block being now in front of the driver I, on the bed piece O, is now brought forward by the driver I, and passes under the mouth piece V, this piece being to throw the winding corner below the center of the top roll W, the piece passes through between the pressure rolls W, and X, these rolls working up and down in grooves in the guide pieces U, U. There is also a rod Y, connected at each end of each roll, at one end, and at the other end, to the lever Z. The lever Z, being fastened on a rocking stand attached to the guide pieces U, U, one of the rods Y, being connected with the lever Z, one side of the stand, and the other one also to the lever Z, at the same distance the other side of the stand at each end of the rolls. When the piece passes between the rolls, it presses the spring *a*, up; and the unevenness of the surface of the piece will open the rolls, always keeping the center of the piece for the shingle exactly between the cutters *b, b*; any unevenness in the piece, on either side throwing the roll over it without changing the direction of the said piece so as to have the knives or cutters *b, b*, take an equal shaving from each side of the shingle. The knives *b, b*, are bolted to slide pieces *c, c, c, c*, working in the guides U, U; the slide pieces *c, c, c, c*, being operated upon by connecting rods *d, d, d, d*, one end of which are fastened to the slides and the other end fastened to the rockers *e, e*; the rods *d, d, d, d*, being connected with the rockers *e, e*, at equal distances each side of the center of the rocker shaft *f*, upon which the rockers, *e, e*, are placed. One end of the rocker *e* extends beyond the rods and is connected with the eccentric rod *g*, a screw being placed in the lower end of the rod *g*, to lengthen or diminish the length so as to give any required thickness to the shingle. This screw being made with an eye in its

head so as to admit a bolt which is used to connect it with the rocker lever, which has a number of holes in it to change the bevel of the shingle, the eccentric being placed
5 on the lower roller shaft F.

The object of attaching the rifting knife K, to the elastic arms L, L, is to enable the knife to follow the grain of the wood in riving a shingle, and also to relieve itself
10 when it comes in contact with a gnarly place in the wood.

Having thus fully described my improved shingle machine, what I claim therein as new and desire to secure by Letters Patent,
15 is—

1. The combination of the rifting knife K (connected with the main driver I, by means of the elastic arms L, L,) with the inclined planes M, M, placed upon the rails
20 J, J, as described; for the purpose of en-

abling the knife to be carried forward under the block during the forward movement of the said driver, and then be elevated to the proper height to split off a shingle during its return movement, substantially as here- 25 in set forth.

2. I also claim the arrangement of secondary driver N, placed above and acting independently of the main driver I, in such a manner that it will drive the rived shingle 30 from under the block and deposit it upon the bed O, forward of the main driver, in such a position that it will be carried forward to be dressed during the forward movement of the said driver, substantially 35 as set forth.

WILLIAM STODDARD.

Signed in presence of—

JONA. LADD,

FRANK HOLT.