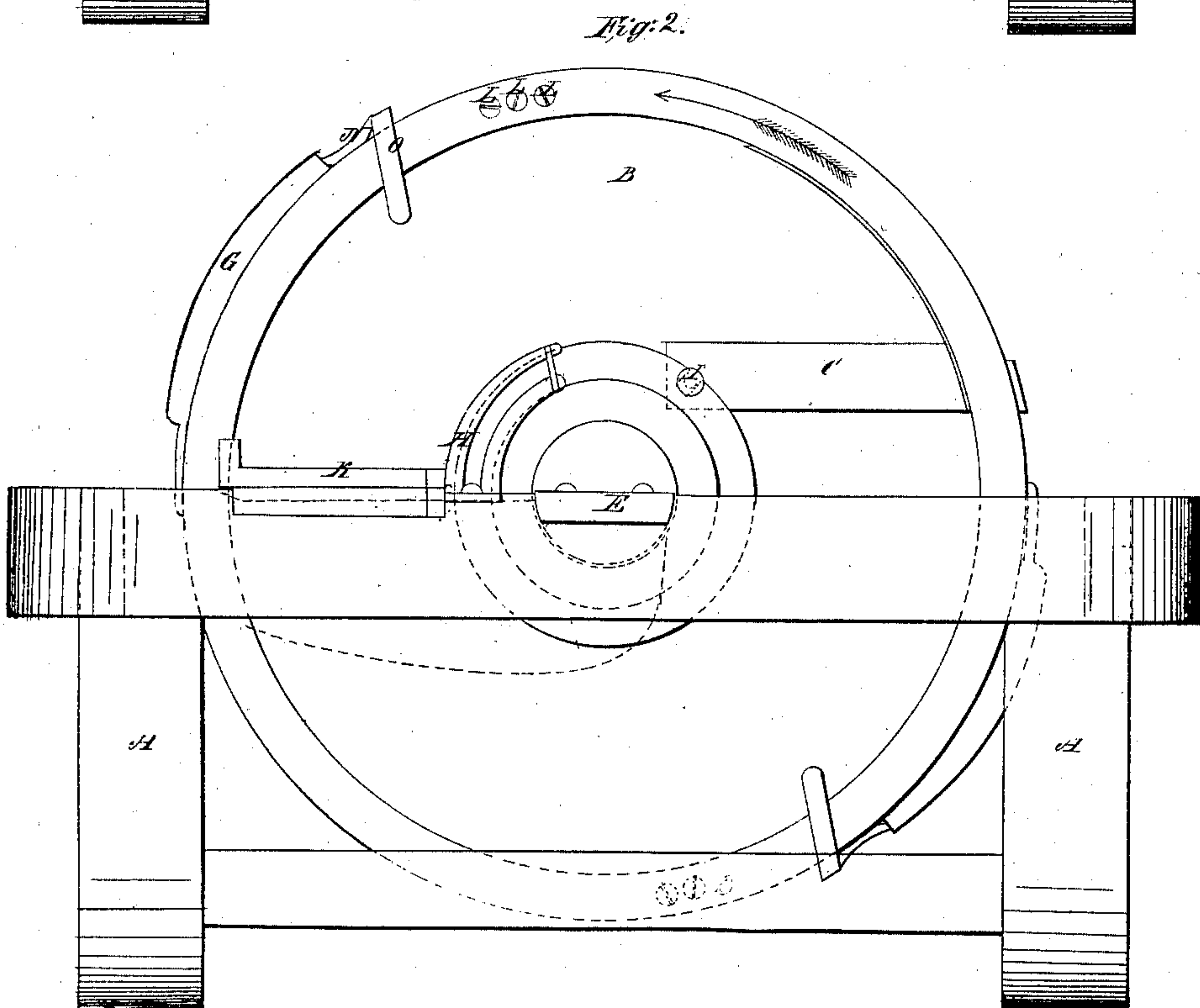
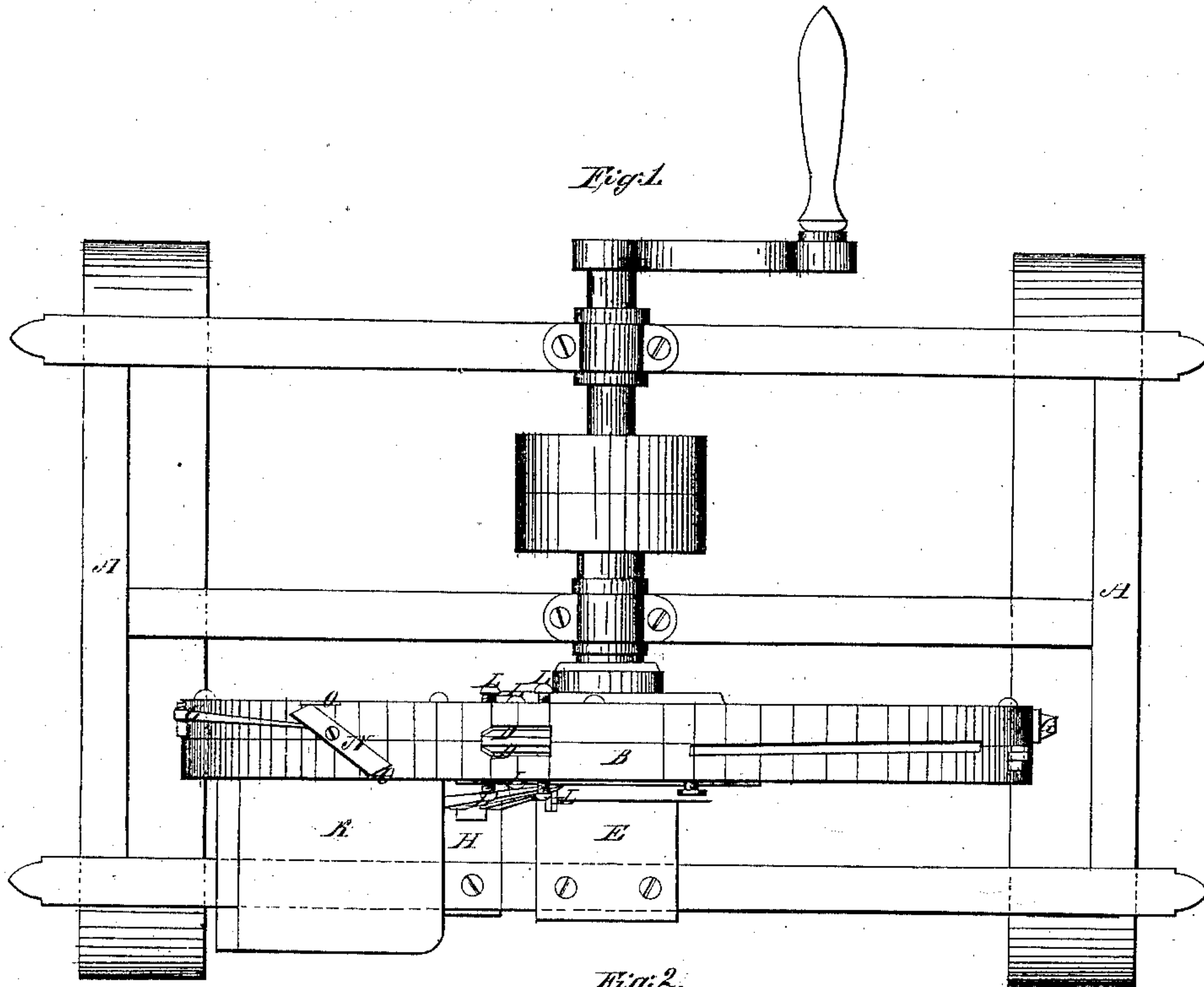


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ROTARY SHINGLE MACHINE.

No. 10,906.

Patented May 16, 1854.



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Fig. 3.

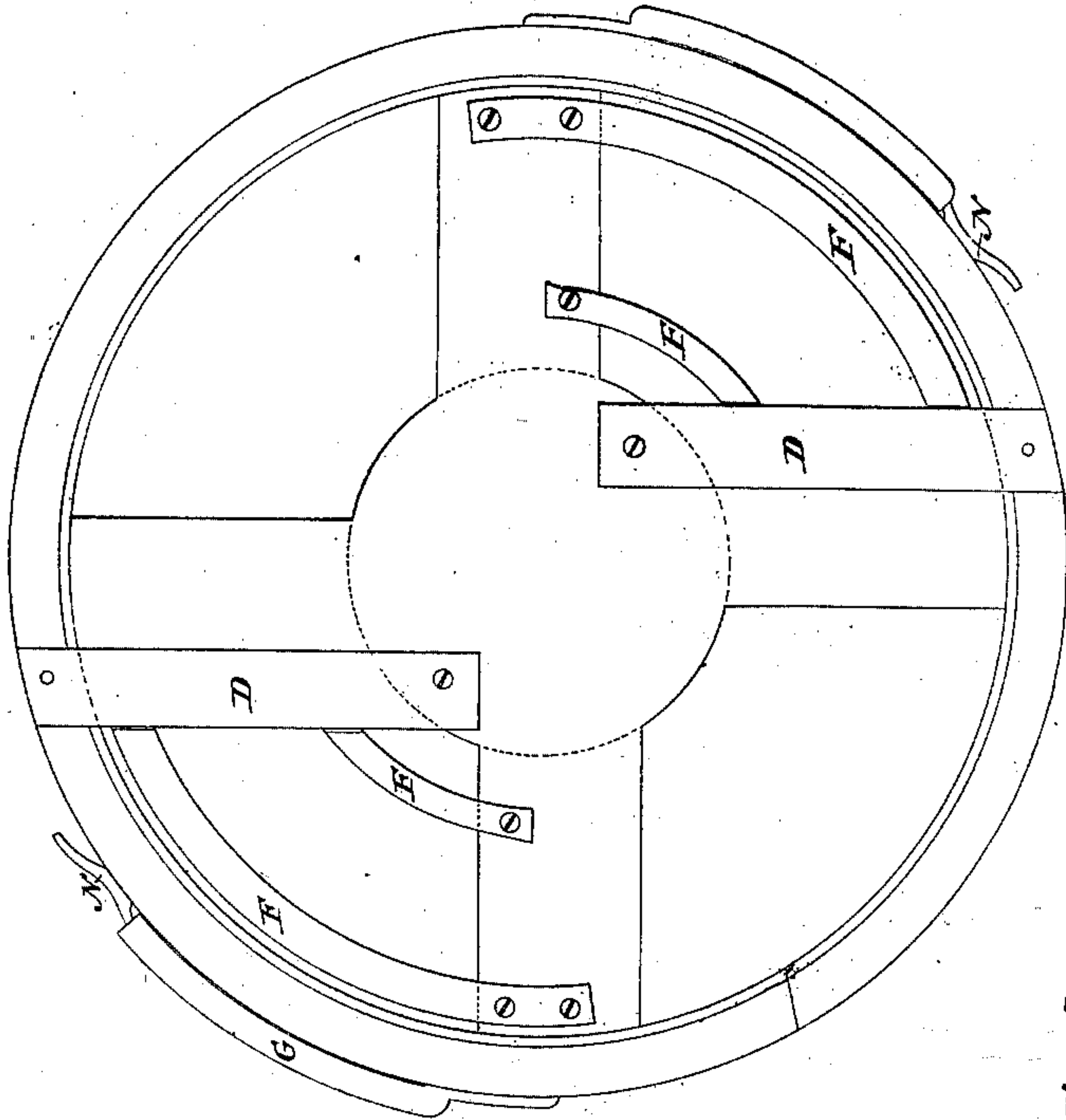


Fig. 5.

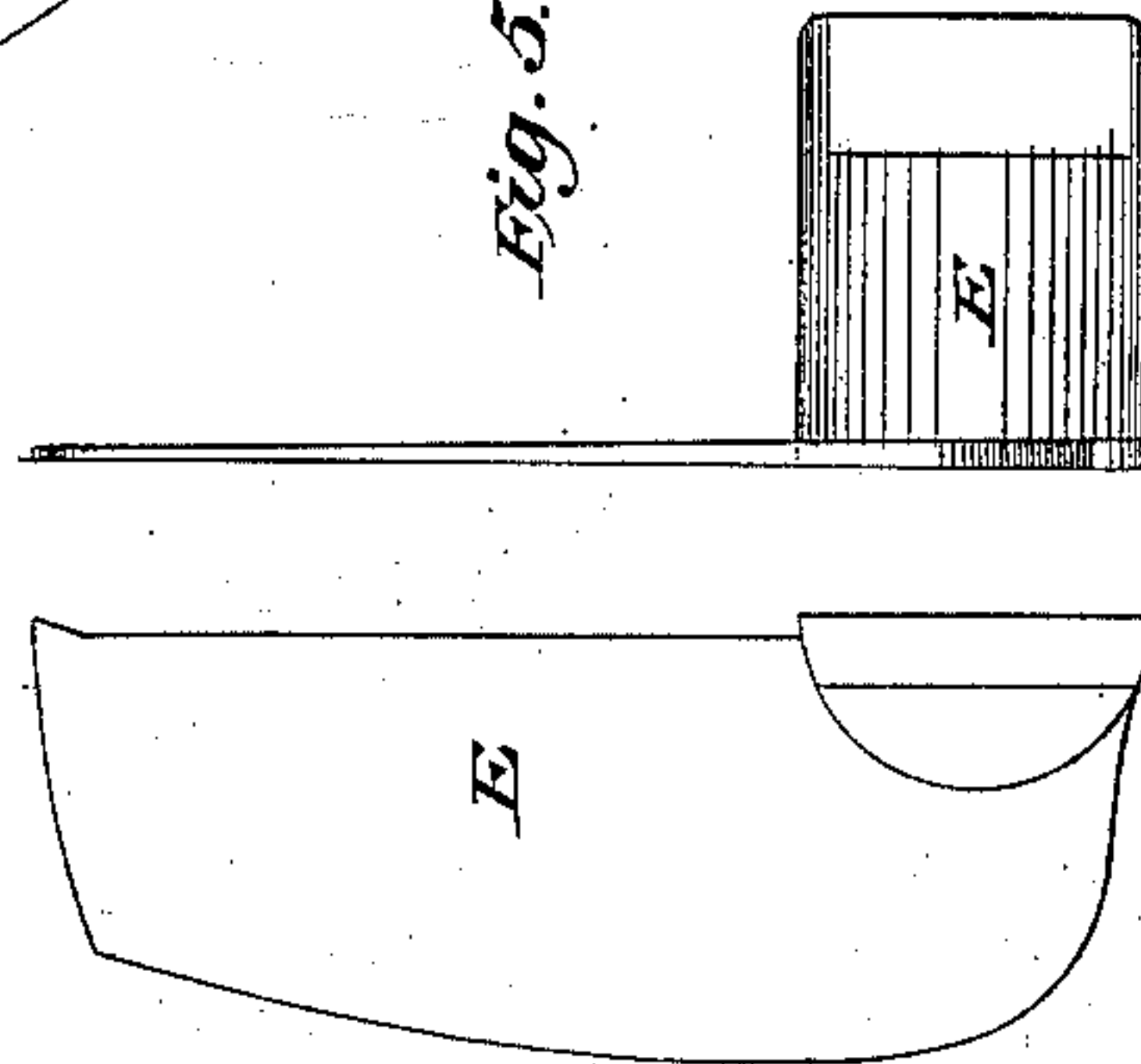
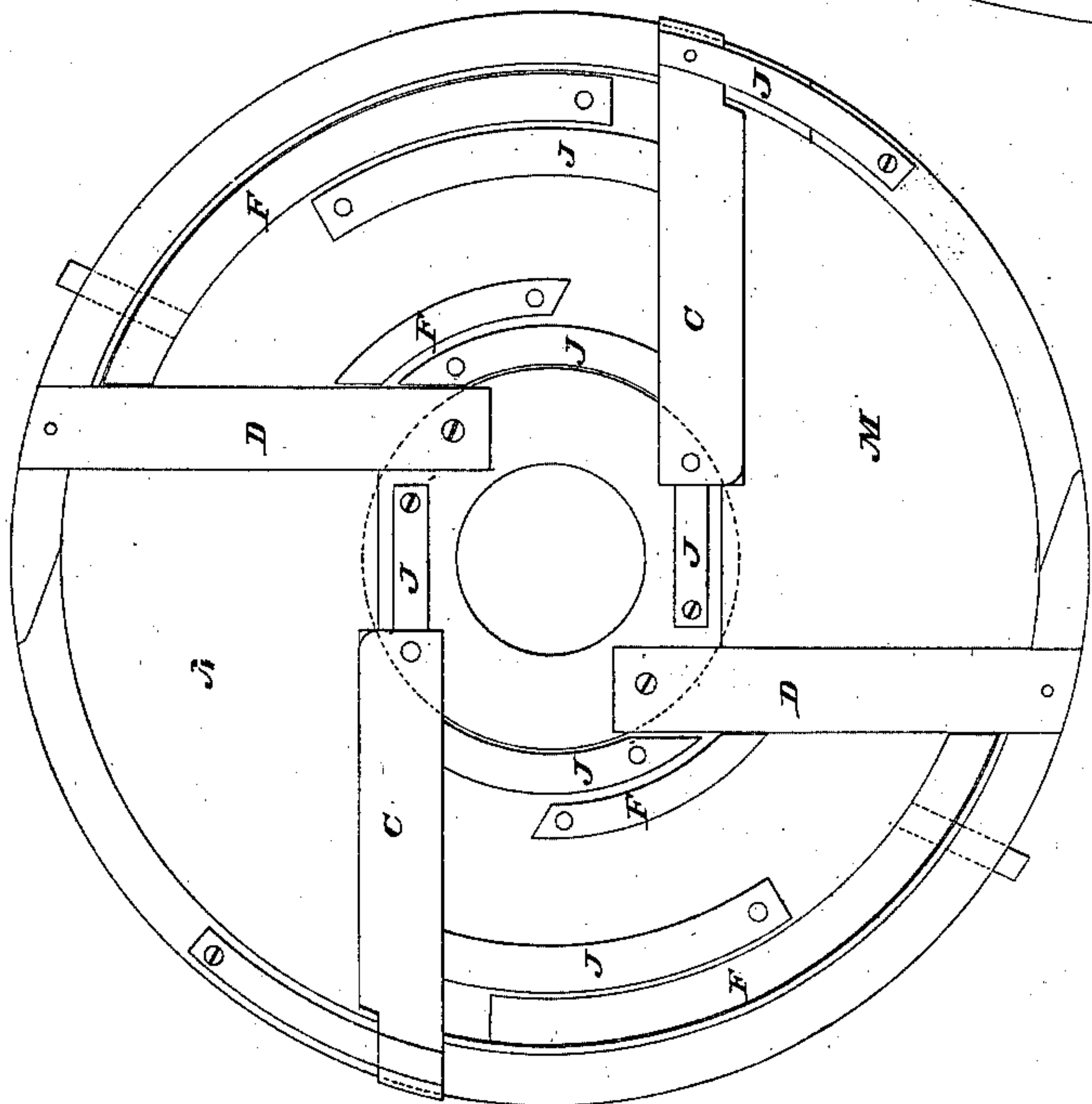


Fig. 4.





# UNITED STATES PATENT OFFICE.

WM. STODDARD, OF LOWELL, MASSACHUSETTS.

## ROTARY SHINGLE-MACHINE.

Specification of Letters Patent No. 10,906, dated May 16, 1854.

*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 a new and useful Rotary Shingle-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Of the said drawings, Figure 1, is a plan. Fig. 2, denotes a side elevation. Fig. 3, is an inside view of one of the two parts of the operating wheel which is attached to the shaft, and which contains two of the shaving knives. Fig. 4, is an inside view of the other part of the operating wheel in which are placed the other two shaving knives and the two riving knives.

The nature of my invention consists of a wheel in which is placed the riving knives and also the shaving knives, and springs and other apparatus as shown in the drawings for adjusting the same for splitting or riving and shaving shingles, by the rotary motion of the wheel in which the knives are placed.

To enable persons skilled in making and using shingle machines, to carry out my invention, I will describe the same as follows:

I construct a frame of wood as seen at A A Figs. 1 and 2, on which I set the operating wheel B B, Figs. 1 and 2. The said wheel is made of two parts or sides, which can be taken apart at pleasure, and in one of the sides or halves of said wheel I place two riving knives C C, Fig. 2, in opposite positions from each other, and also in said part of the wheel I place two of the four shaving knives D D, Fig. 2, and I then place the other two shaving knives D D, in the opposite half of the wheel aforesaid so that the edges of the said knives shall come nearly together at the out ends of them where they are attached to the periphery of the said operating wheel B B, Figs. 1 and 2, and the said knives are left apart at the ends next the center of the wheel far enough to give the proper thickness of the butt of the shingle; that is, that the knives are set in the manner as aforesaid for the purpose of shaving the shingles of a true taper from butt to point after being rived from the bolt by the riving knives C C.

At E, Figs. 2, and 5, can be seen partly in dotted lines the arm on which the piece

for the shingle rests after being rived from the shingle bolt, and the pieces for the shingles after being rived are kept upon the arm E, before, and while being shaved by the springs F F, as seen at Figs. 3 and 4, and the springs G G, both of which are shown at Fig. 1. The said springs are so constructed and set in the wheel so that they and the arm E, sustain the pieces of wood which is split or rived from the shingle bolt for making the shingles.

At H, Fig. 2, I place a slotted stand into which the stud I, plays as the wheel revolves so as to bring out the riving knife the required distance from the flanche of the wheel for the thickness of the butt of the shingles, the said riving knives after riving the pieces for the shingles are moved back into their former positions, by the stud I, passing through the slot in the stand H, and then being forced back by the springs J J, Fig. 4.

At K, Figs. 1 and 2, I construct a platform to place the shingle bolts upon for feeding in the same for riving and dressing.

The part of the operating wheel that contains the riving knives is constructed with a flanche in the center of the same, which is worked out on a bevel from one riving knife to the other, that is that the surface of the said flanche is recessed back at the edge of the riving knives sufficient to admit the thickness of the butt of the shingles and knife and the said flanche is gradually beveled from where it is recessed to where the next riving knife comes in contact with the same. It is necessary to have the driving shaft constructed substantially with the wheel and be set in good strong boxes on the said frame A A.

At M M, Fig. 4, can be seen the two linings for the purpose of guiding or conducting off the shavings from one of the sides of all the shingles.

At N and O, can be seen the sustaining levers for supporting the out ends of the springs F F.

Having thus described the construction of my rotary shingle machine I will now proceed to describe the operation of the same. I place a block of wood on the platform K with the grain running longitudinally; then I set the wheel B in motion as the arrow points, and then press the said bolt or block against the flanche of the said wheel; then the riving knife comes in contact with or



strikes the said bolt or block of wood, first upon the end; then as the wheel revolves, the riving knife inclines itself into a drawing stroke as it passes through the riving operation; then the piece of wood which has been rived for the shingle passes side-wise until the lower edge of the same rests upon the upper edge of the arm E; then as the said wheel revolves the springs F F, Figs. 3 and 4 pass against each side of the piece which has been rived for the shingle, and sustains the same sidewise until the shaving knives D D, Figs. 3 and 4, commence dressing the two sides of the said piece which has been rived for the shingle, by one of the said knives cutting on one side of the said shingle, and the other shaving knife cutting on the other side of the said shingle. The outside ends of the said knives being set nearly together as aforesaid make the taper in the shingle. It will be seen by inspection of the drawings that the said riving and shaving knives during the revolving of the said operating wheel B, make or cut a drawing stroke which is very essential to produce good finished work. The said shingles after being dressed pass out on the opposite side of the wheel from which they enter or which the bolt is placed they the shingles passing out between the spokes or arms of the wheel B.

The beforementioned riving knives C C, being attached to springs or vibrating arms

will follow the grain of gnarly or cross-grained wood. By this means the shingles are all made with the grain, which is well known to be far superior to any other shingles made in any other way, than being rived and dressed with the grain of the wood.

What I claim as my invention and desire to secure by Letters Patent is—

1. The riving knives C C, the springs J J, to which they are attached or secured, and the dressing knives D D, the beveled flanged wheel B, when they are arranged and operated as shown and described in the within drawings and specification for the purposes set forth.

2. I claim the arm E, placed at, or near the center of the within described wheel B, or its mechanical equivalent, when made and used for the purposes of sustaining the shingles, while the knives D D, are dressing them as set forth.

3. I claim the levers N and O, in combination with the springs G G, for supporting the four springs F F, F F, near the periphery of the wheel B, during the dressing of the shingles substantially and essentially as set forth.

WILLIAM STODDARD.

Witnesses:

WILLIAM A. RICHARDSON,  
DANIEL BRODT.