

F. H. KEENEY.
Shingle-Machines.

No. 148,305.

Patented March 10, 1874.

FIG. 1.

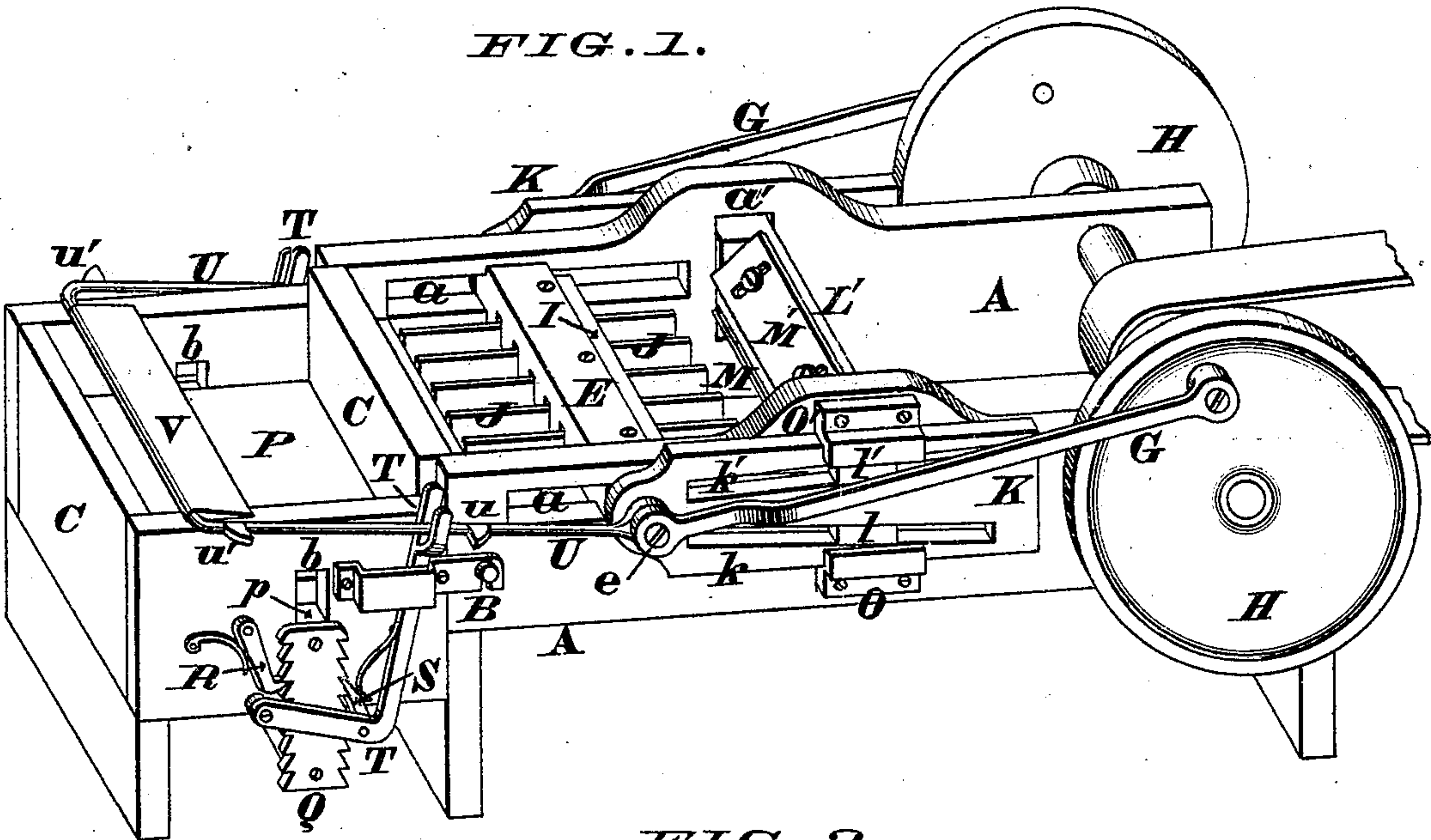


FIG. 2.

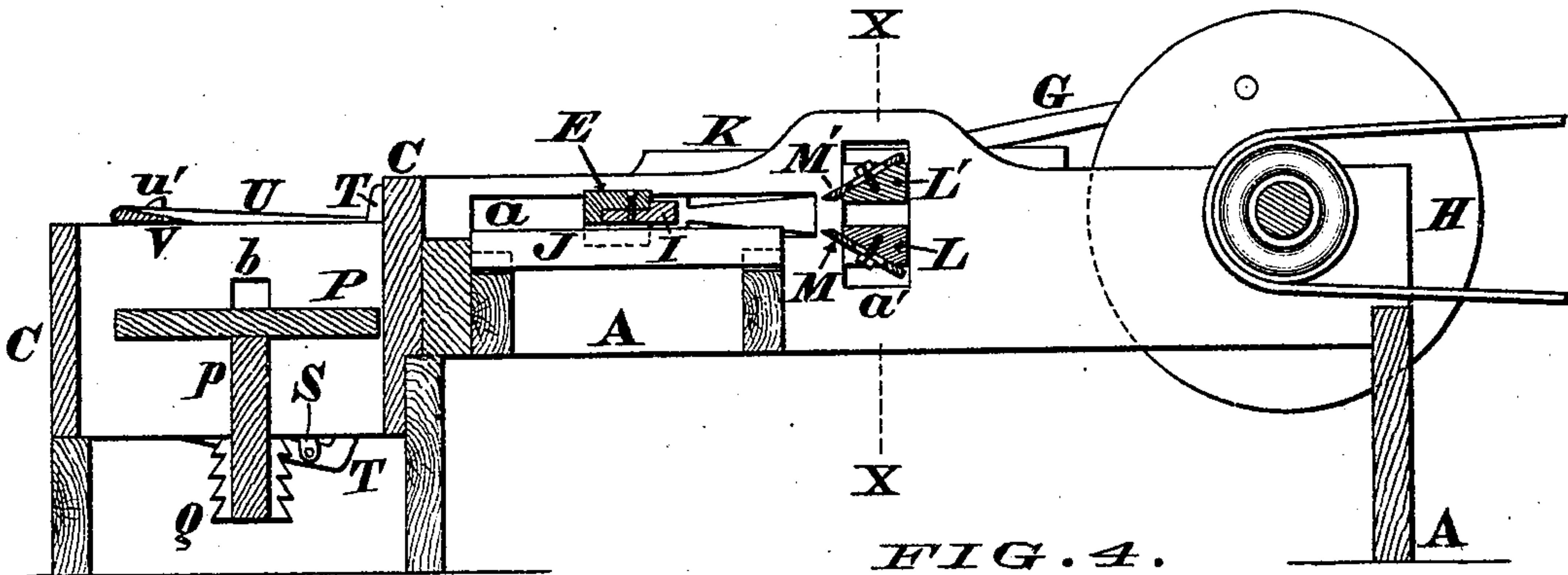


FIG. 4.

FIG. 3.

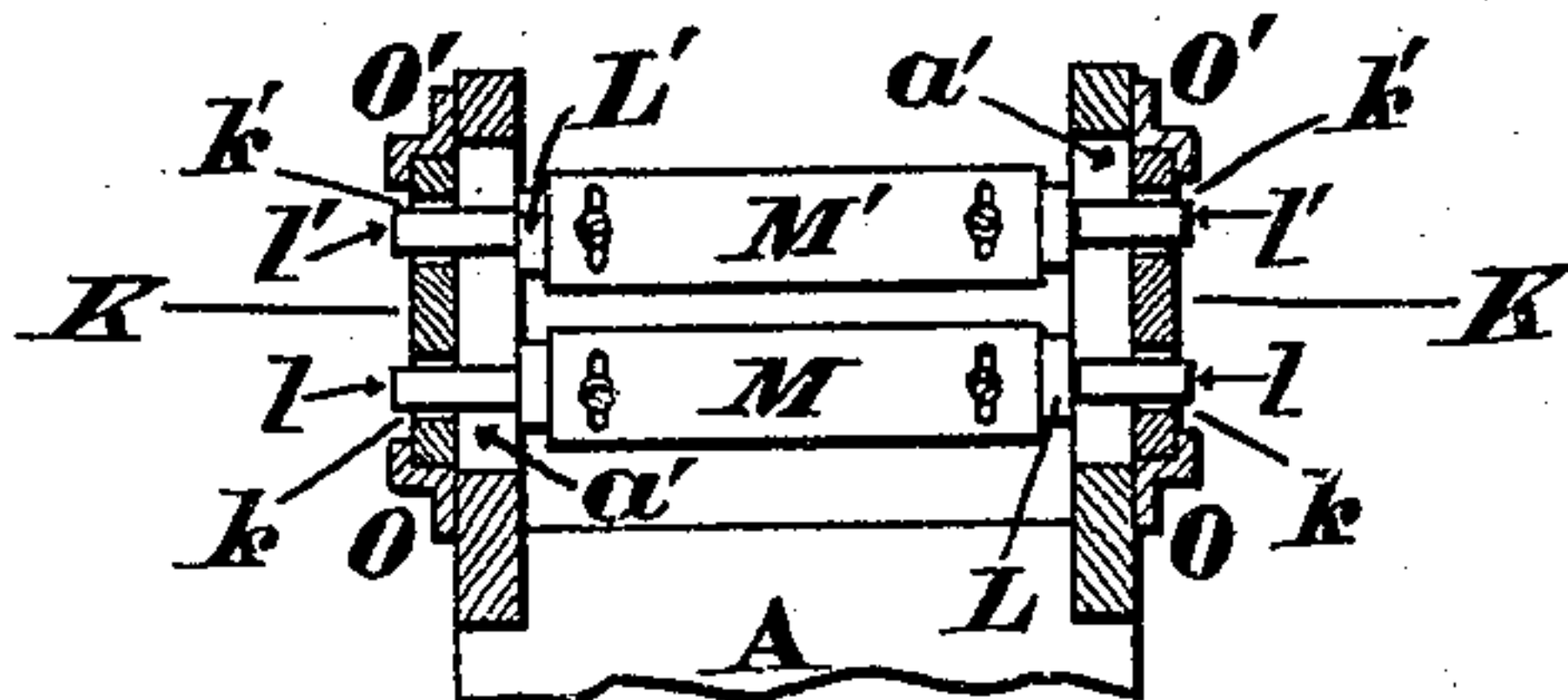
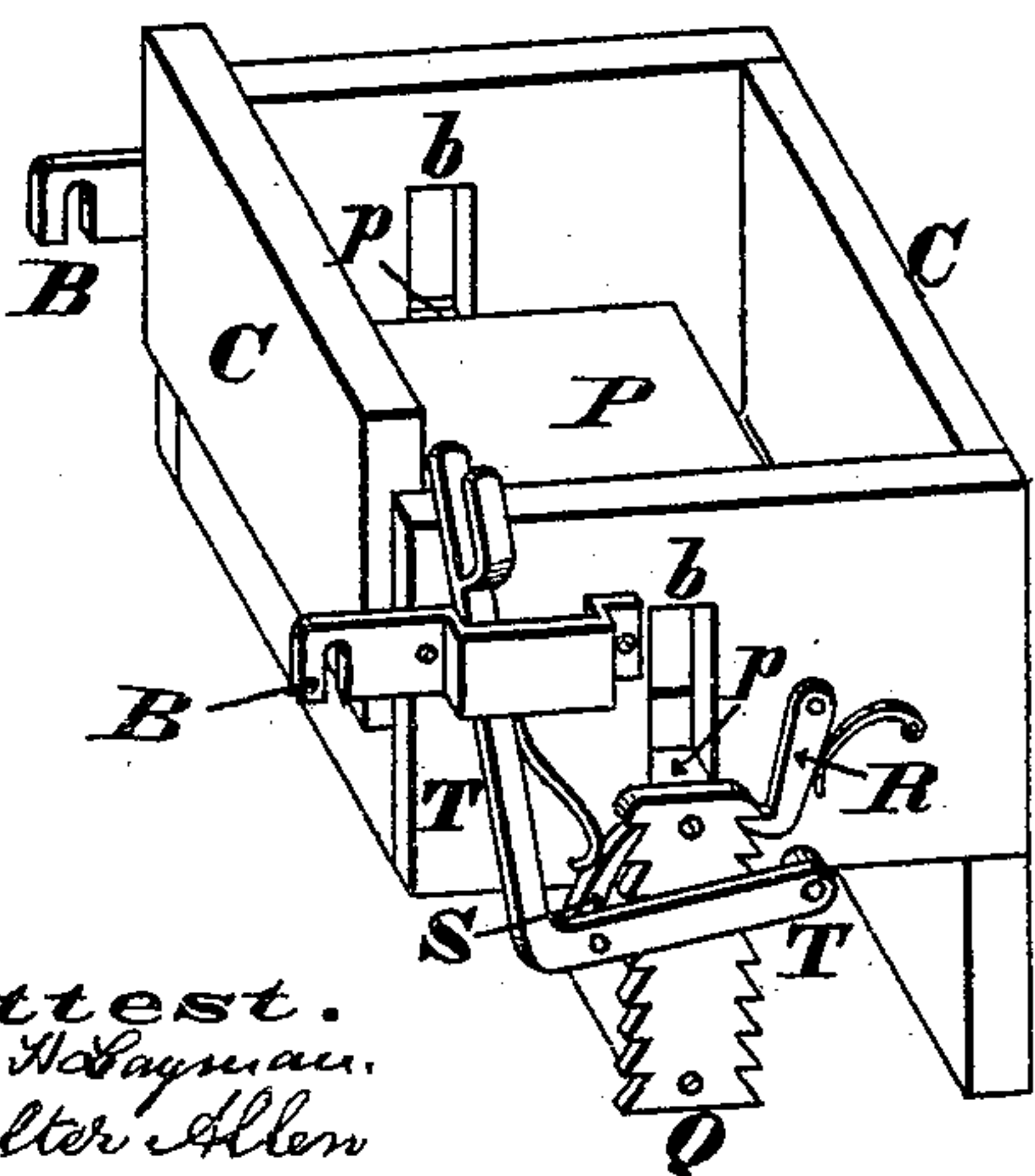
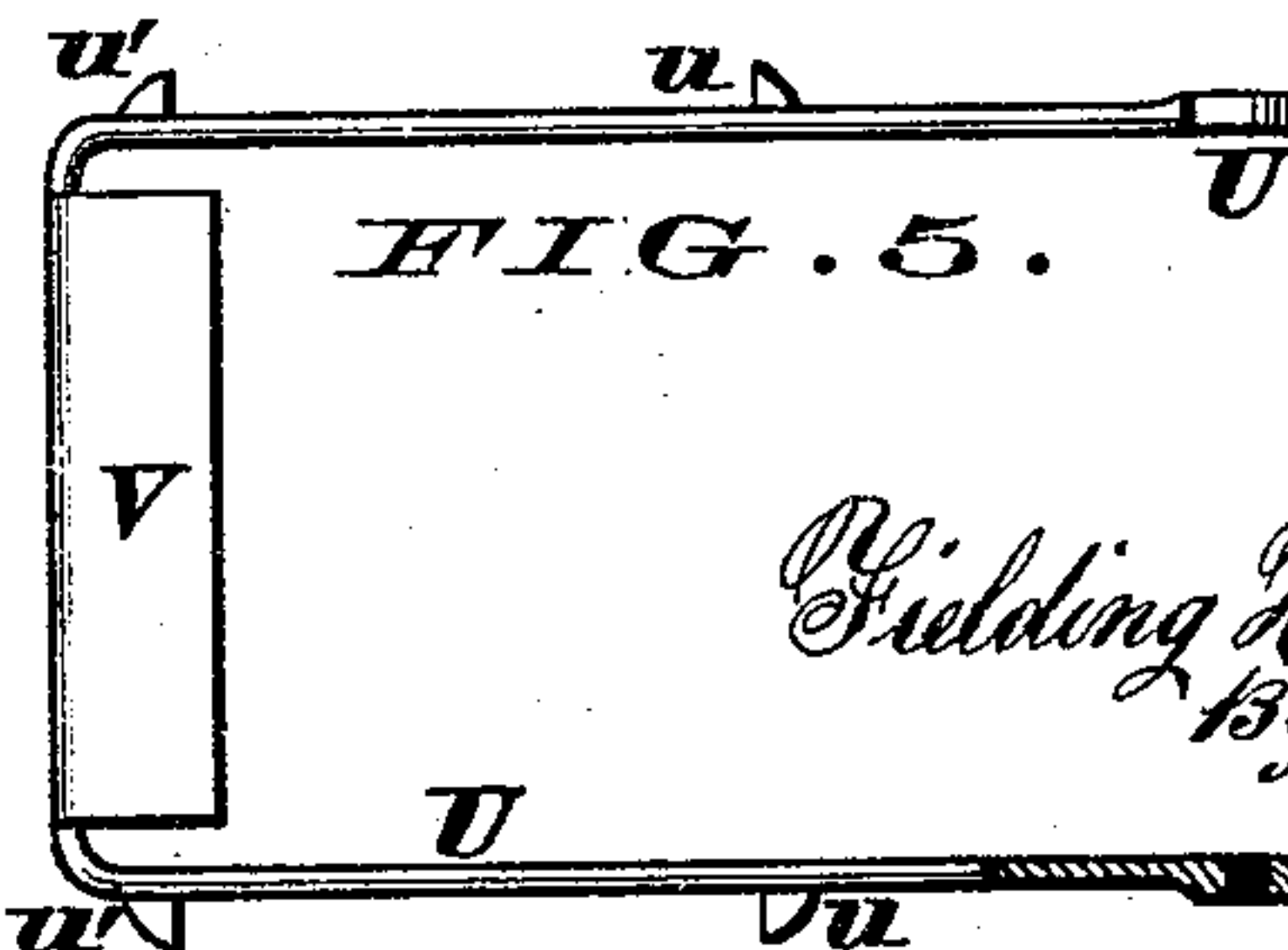


FIG. 5.



Attest.
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Walter Allen

Fielding H. Keeney,
By Knight Bros.
Att'ys.

UNITED STATES PATENT OFFICE.

FIELDING H. KEENEY, OF NEWPORT, KENTUCKY, ASSIGNOR TO HIMSELF
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IMPROVEMENT IN SHINGLE-MACHINES.

Specification forming part of Letters Patent No. 148,305, dated March 10, 1874; application filed
January 26, 1874.

To all whom it may concern:

Be it known that I, FIELDING H. KEENEY, of Newport, Campbell county, Kentucky, have invented a new and useful Shingle-Machine, of which the following is a specification:

My invention, in its most restricted form, consists in an arrangement of devices for shaving and reducing to proper taper a riven slab or blank. In its more extended form my invention further includes a provision for riving or splitting the individual slabs from a bolt or block.

Figure 1 is a perspective view of my machine in its complete form. Fig. 2 is a longitudinal section thereof. Fig. 3 is a perspective view of the riving-box, detached from the main frame. Fig. 4 is a section at the line X X. Fig. 5 is a plan of the cleaver, with its connecting-rods detached from the machine.

A is my main frame, containing my shaving apparatus. When it is desired to employ the machine for the manufacture of shingles from the original block, I attach to frame A, by means of hooks B or other fastening, an additional frame, C. The shaving apparatus contained in frame A is complete in itself, and can be used without the riving attachment.

My frame A has on each side of it a longitudinal slot or guide, *a*, for a cross-head, E, whose wrists, *e*, are connected by pitmen, G, with drive-wheel H. Said cross-head is of L form, to receive and hold a wooden pusher, I. J are a series of flat horizontal bars, having their edges presented upward, and constituting a grid or grating to support the slab, and to allow escape of dust and shavings. Attached to cross-head E are two side plates, K, each of which is pierced with converging slots, *k k'*, to receive the tenon ends *l l'* of transverse bars L L', to whose inclined faces knives or plane-bits M M' are secured. As the cross-head E, with its slotted plates, K, reciprocates forward and backward, the bars L L' are caused by the slots *k k'* and tenons *l l'* to approach to and recede from each other, playing up and down, as they do so, within the vertical slots *a'* of the main frame. Lugs O O', projecting from the main

frame, confine the side plates K K' to their proper horizontal path.

In operation, the slabs or rough shingles are placed upon the grating J, so as to rest against the pusher I in front of the cross-head; and when the drive-wheels H are rotated, so as to draw the cross-head toward them, the shingle is forced through between the knives M M'. As the cross-head moves along, the converging slots *k k'* draw the knives M M' together in a gradual and uniform manner, and accordingly impart the desired smooth and tapering finish to the shingle, the pusher finally operating to discharge the finished shingle on the rear side of the knives, and then retreating to afford room for the insertion of another rough shingle.

In using the machine as above, the shingles are first got out in the rough by any ordinary process of cleaving; but shingles may be by any machine manufactured from the original block, or both, by the addition of my riving attachment, which I now proceed to describe.

Confined to a vertical path within the riving-box or frame B, by means of projections *p*, which work in slots *b* in said box, is a horizontal table or platform, P, whose projections aforesaid carry two double racks, Q, with each of which there engages a retaining-pawl, R, and a propelling or elevating pawl, S. The said elevating-pawls are mounted on L-formed levers T, which, on the retreat of the cross-head, are struck by tappets *u* on rods U, which extend from the wrists *e* on the cross-head, said pawls S being thus caused to elevate the racks, and consequently the table, a distance equal to one tooth interval. The rods U carry a cleaver, V, which, on the return stroke of the cross-head, engages against the block, and severs a rough shingle or slab, which the operator then lifts out, and, on retreat of the cross-head, places in front of the pusher, as already explained. The levers T may be retracted by tappets *u'* on the rods U, or by a spring or weight.

I claim as new and of my invention—

1. The arrangement of slotted frame A *a a'*, cross-head E *e*, pitman G, drive-wheel H, pusher I, grating J, slotted plates K *k k'*, bars

L l L' l', bits M M', and lugs O O', the whole being combined to operate substantially as set forth.

2. The riving attachment consisting of slotted frame B b, platform P, racks Q, pawls R S, levers T, rods U u u', and cleaver V, the whole being combined and operating substantially as set forth.

In testimony of which invention I hereunto set my hand.

FIELDING H. KEENEY.

Attest:

GEO. H. KNIGHT,
G. F. NIEBER.