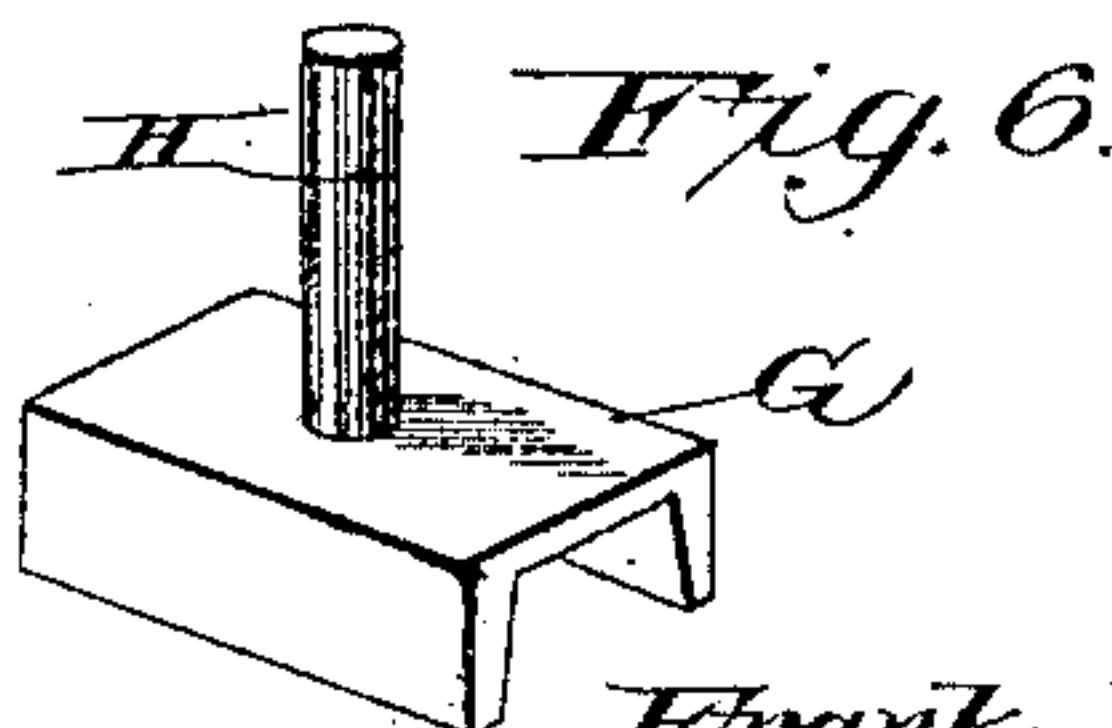
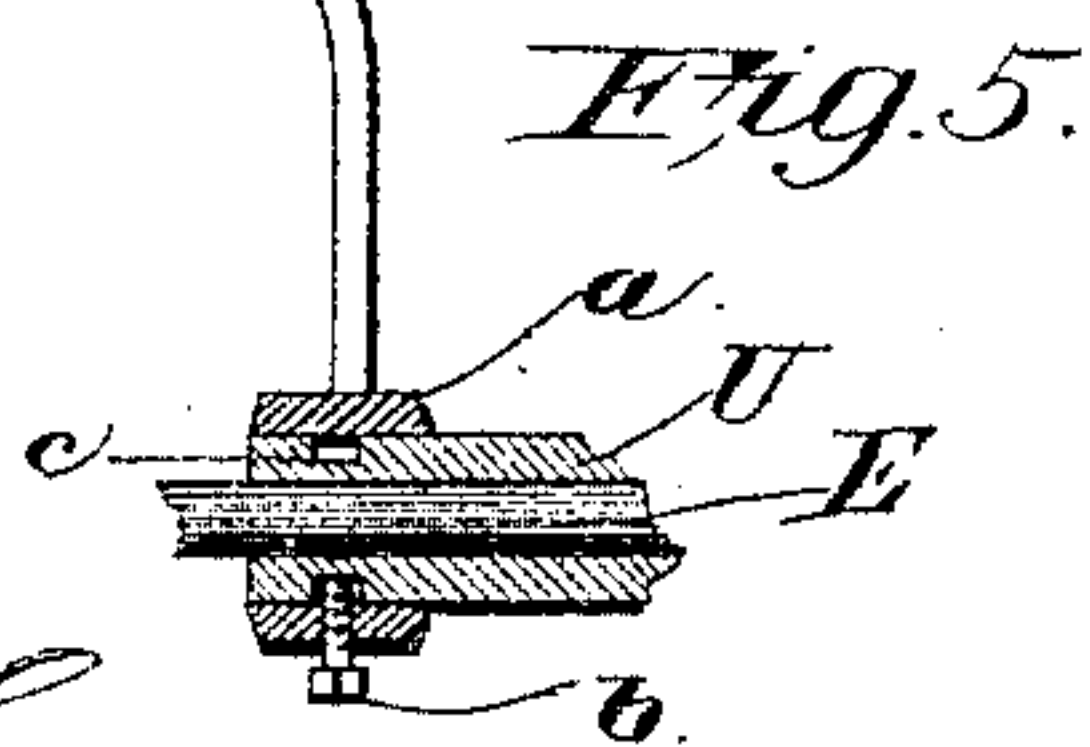
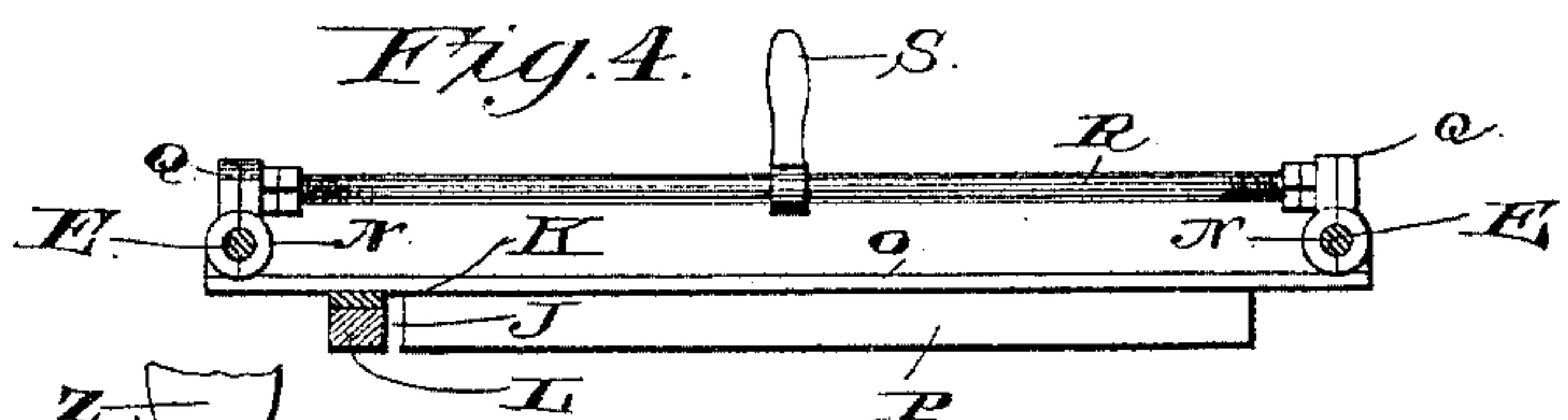
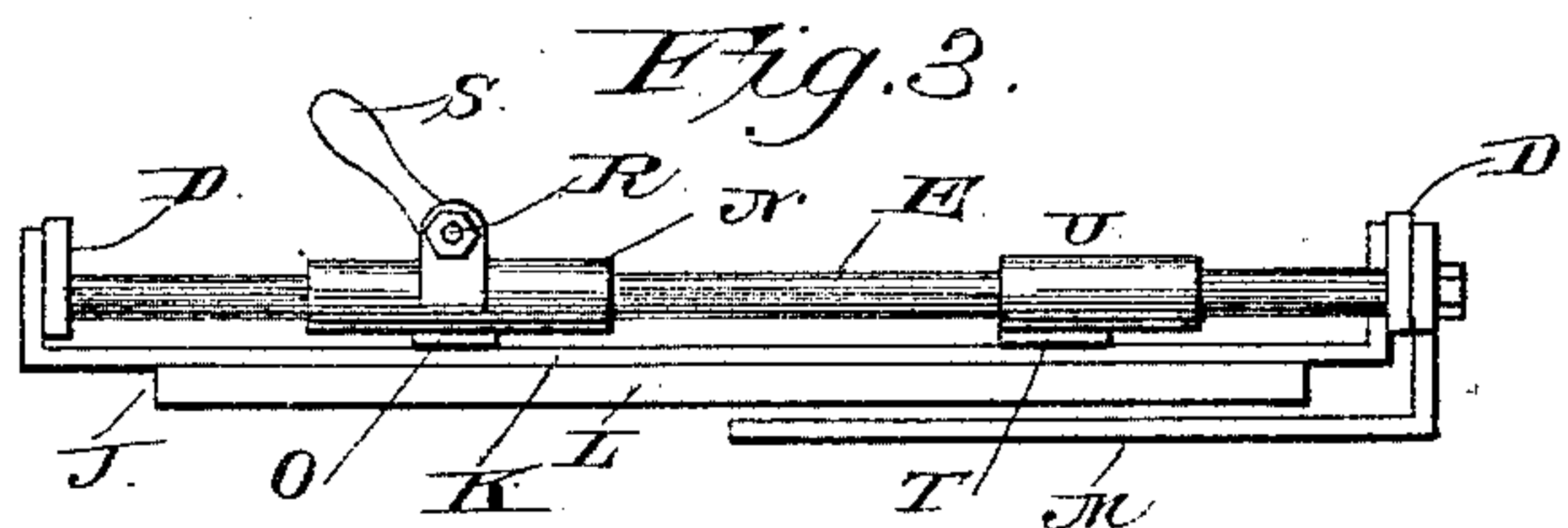
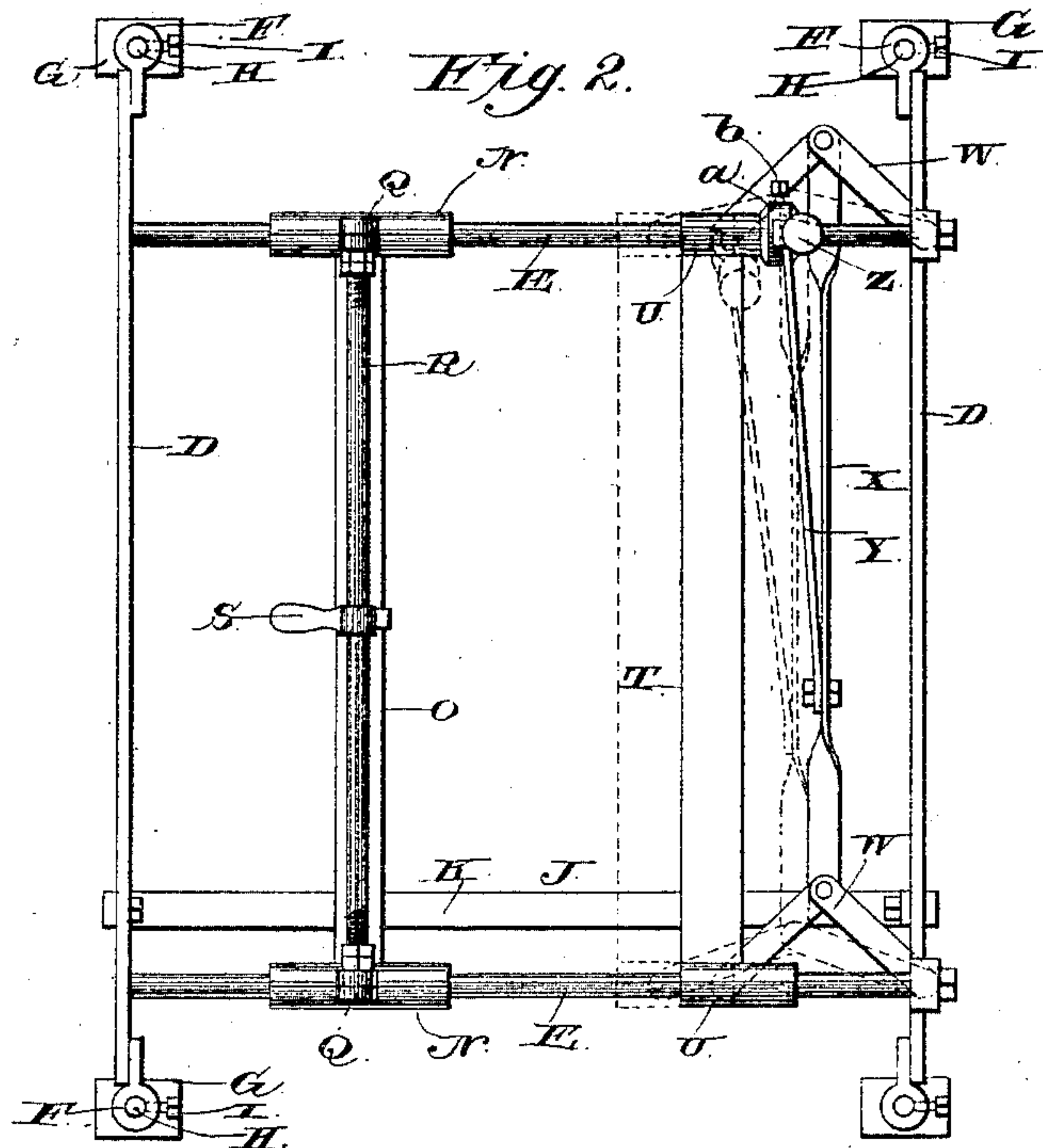




2 Sheets—Sheet 2.

No. 437,724.

Patented Oct. 7, 1890.



Witnesses

Businesses

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# UNITED STATES PATENT OFFICE.

FRANK ARTHUR SIMONDS, OF GRAND RAPIDS, MICHIGAN.

## STEALER-CARRIAGE FOR SHINGLE-MACHINES.

SPECIFICATION forming part of Letters Patent No. 437,724, dated October 7, 1890.

Application filed June 4, 1889. Serial No. 313,058. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK ARTHUR SIMONDS, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Stealer-Carriage for Shingle-Sawing Machines, of which the following is a specification.

My invention relates to improvements in "stealer-carriages" for shingle-sawing machines; and it consists in certain novel features, hereinafter described and claimed.

The object of my invention is to provide a device which will be so constructed as to bind or lock the board on its sides and one end and, instead of clamping it lengthwise, to clamp it widthwise and in such a manner that the shingle being sawed is not clamped at all, but the clamping is all accomplished above the shingle, so that it will be impossible to spring the shingle.

A further object of my invention is to provide improved means to arrange the clamping-dogs transversely upon the carriage, whereby the sides of the board are clamped, and that only throughout a limited portion of its length, so that the operator can stand in front of the machine and guide the work. A still further object is to adjust the stationary dog and to provide improved means for operating the movable dog, and, finally, my invention aims to provide for adjusting the carriage vertically as the lower edges of the wooden faces of the dogs are worn away and to provide a supplemental stop under the side dog to insure the proper length of the shingles.

In the drawings, Figure 1 is a perspective view of a shingle-sawing machine provided with my improved carriage. Fig. 2 is a plan view of the carriage removed and on a larger scale. Fig. 3 is an edge view of the carriage. Fig. 4 is a cross-section of the same, illustrating more clearly the construction of the stationary dog. Fig. 5 is a detail view of the end of the handle or operating-lever. Fig. 6 is a detail view of the shoe which supports the carriage.

The shingle-sawing machine A is of the usual construction and forms no part of my invention, being shown only for the purpose of having my improvements more readily un-

derstood. The saw B is rotated in the usual manner, and the carriage is mounted on the tracks C on the upper side of the frame of the machine and moved over said tracks to carry the board to the saw.

The frame of the carriage consists of the transverse longitudinal rods or bars D D and the cylindrical rods E, secured to and extending between the said transverse bars and serving as rails, along which the dogs are moved. At the ends of the transverse bars I secure the vertical sleeves or bearings F, and the shoes G, which engage the rails C, are provided with vertical stems or spindles H, which extend upward into the said sleeves F, and are adjustably secured therein by the set-screws I, mounted in the sleeves and bearing against the said stems or spindles.

The side stop J consists of a metallic bar K, having its ends turned up and secured by suitable bolts to the transverse bars D, and a wooden bar L, secured to the under side of the said metallic bar. This stop J is arranged at the left-hand side of the carriage longitudinally thereof, and the board being operated upon abuts at its end against the same. In order that the board may not slip past this stop when too thin to impinge against the same, I provide the supplemental steel stop M, which is bolted to the rear bar D and projects forward under the stop J. Should the board be too thin to impinge against the stop J, it will strike against this supplemental stop M, and be thereby held in proper position.

The front stationary dog consists of the sleeves N, mounted on the rods E, the metallic bar O, secured to and extending between the said sleeves, and the wooden bar P, secured to the under side of the said bar O and carried thereby. The sleeves N are divided and fit snugly around the rods E, and are provided on their upper sides with the lugs Q, and the said lugs are engaged by the ends of a rock-shaft R, provided at its center with a crank arm or handle S and having its ends reversely threaded, so that as the said rock-shaft is rotated in one or the other direction the sleeves will be caused to expand or contract, and thereby secure the dog in place or allow it to be adjusted. The rear dog consists of a metallic bar T, having the sleeves



or bearings U at its ends, which fit on and move upon the rods E, and the wooden bar V, secured to the under side of the metallic bar T and carried thereby. At the ends of the rear dog and extending between the bar T and the rear transverse bar D, I provide the toggle-levers W W, and the said toggle-levers are connected by a link X, as clearly shown. The said link X is connected by a pitman Y with the operating lever or handle Z, which is mounted on one of the bearings U of the rear dog. The said handle or lever is provided at its pivotal end with a ring a, which fits over the bearing U, and in which a set-screw b is mounted, the said screw engaging an annular groove c in the bearing U to prevent the handle slipping from its position.

The side stop J extends from one transverse bar D to the other, and is of greater length than the distance between the clamping-dogs even when distended to clamp a very wide board. This construction spaces the bars D so far apart that the sleeves N and U are permitted to move outwardly the necessary distance to separate the dogs sufficiently to receive any board, as will be understood.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my improved carriage will, it is thought, be readily understood. The carriage is mounted on the frame of the machine in the usual manner by engaging the shoes G over the track or rails C, as will be readily understood. When it is desired to feed a board to the saw, the board is inserted between the front and rear dogs, with its end resting against the side stop, and is clamped between the front and rear dogs. The carriage is then pushed forward toward the saw and the shingle will be cut off, and when completed will drop below the saw. The board is clamped between the dogs by throwing the operating lever or handle Z toward the left, thereby expanding the toggle-levers simultaneously through the medium of the pitman and the link, and consequently throwing the rear dog against the board so as to clamp it against the front dog. Of course to release the dog the operating lever or handle Z is moved toward the right, thereby drawing the rear dog from the board.

If the board should be too wide to enter easily between the front and rear dogs, the front dog can be adjusted to the proper point to permit of the insertion of the board. This is accomplished by first turning the crank arm or handle S forward and downward, so as to loosen the sleeves N, after which the sleeves are moved along the rods E to the proper point, and the handle is then turned backward and upward, so as to close the sleeves and cause them to bind around the rods E, thereby securing the dog in its adjusted position.

As the wooden bars P V are worn away, the set-screws I are loosened, so that the carriage

can be lowered to compensate for the wear, and the said set-screws are then again tightened, so as to hold the carriage in its lowered position. I am thus enabled to easily compensate for the wear on the wooden bars caused by the accidental chipping and sawing of the same in the operation of the device.

From the foregoing description it will be seen that I have provided a carriage which is composed of few parts, which is simple in its construction and efficient in its operation. By using my improved carriage the refuse of a lumber-mill that would otherwise be discarded can be cut up into shingles, and the device can be adjusted to receive boards and planks of various widths. The side stop J insures the boards being brought uniformly against the saw and furnishes an effectual guard against the board slipping from the carriage, owing to the fact that as the saw rotates in the direction indicated by the arrow the tendency will be to force the board against the said side stop. The handle or operating lever Z of course moves with the sleeve or bearing on which it is mounted, and it is effectually secured to the said sleeve by the set-screw and groove shown and described.

Especial stress is placed on the fact that in my improved carriage the board is clamped on the sides and above the plane of the saw instead of being clamped at the ends and below the plane of the saw. By this arrangement I overcome the liability of the shingle to buckling or springing and am enabled to produce shingles which are uniform in all respects.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the carriage-frame, of the clamping-dogs arranged transversely thereon, the side stop secured to the frame, and the supplemental stop secured to the frame and projecting forward under the side stop, as set forth.

2. The combination, with the carriage-frame, of the movable dog mounted thereon, the stationary dog provided at its ends with divided sleeves engaging the carriage-frame, and the rock-shaft adapted to act on the said divided sleeves to cause them to bind on the carriage-frame, as set forth.

3. The combination, with the carriage-frame having the rods E, of the movable dog mounted on said rods, the stationary dog provided at its ends with the divided sleeves N, encircling the rods E and having the lugs Q on their upper sides, and the rock-shaft provided with a crank arm or handle at its center and having its ends reversely threaded and engaging the lugs Q, as set forth.

4. The combination, with the carriage-frame, of the stationary dog mounted thereon, the movable dog, also mounted on the frame, the toggle-levers between the movable dog and the frame, the link connecting the toggle-levers, the handle or operating-lever mounted



on the movable dog, and the pitman connecting the same with the link, as set forth.

5 5. The combination, with the carriage-frame having the transverse bars D, of the vertical sleeves secured to the ends of said bars, the shoes having vertical stems projecting up into the vertical sleeves, and the set-screws mounted in said sleeves and bearing on the said stems, as set forth.

10 6. The carriage having the adjustable shoes G, which engage the tracks or rails of the frame of the machine, as set forth.

15 7. The carriage having the adjustable shoes G, which engage the tracks or rails of the frame of the machine, said shoes being adjustable by means of set-screws, as set forth.

8. The combination, with the carriage-frame, of the transverse clamping-dogs mounted thereon and a longitudinally-disposed side stop having its ends secured to the end bars 20 of the frame and extending beyond said clamping-dogs, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

FRANK ARTHUR SIMONDS.

Witnesses:

ALLEN D. PEASE,  
E. A. STRAUSS.