

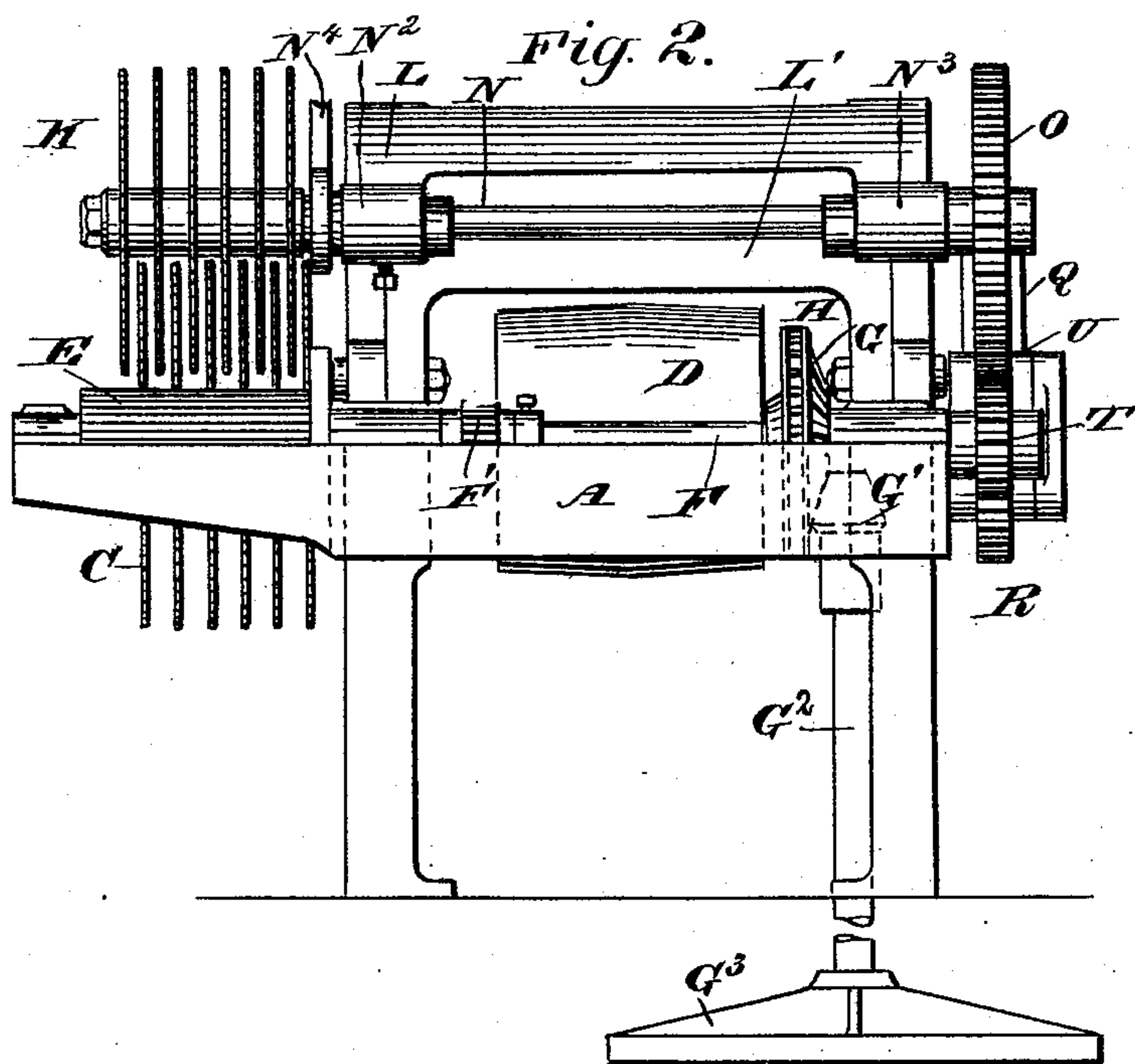
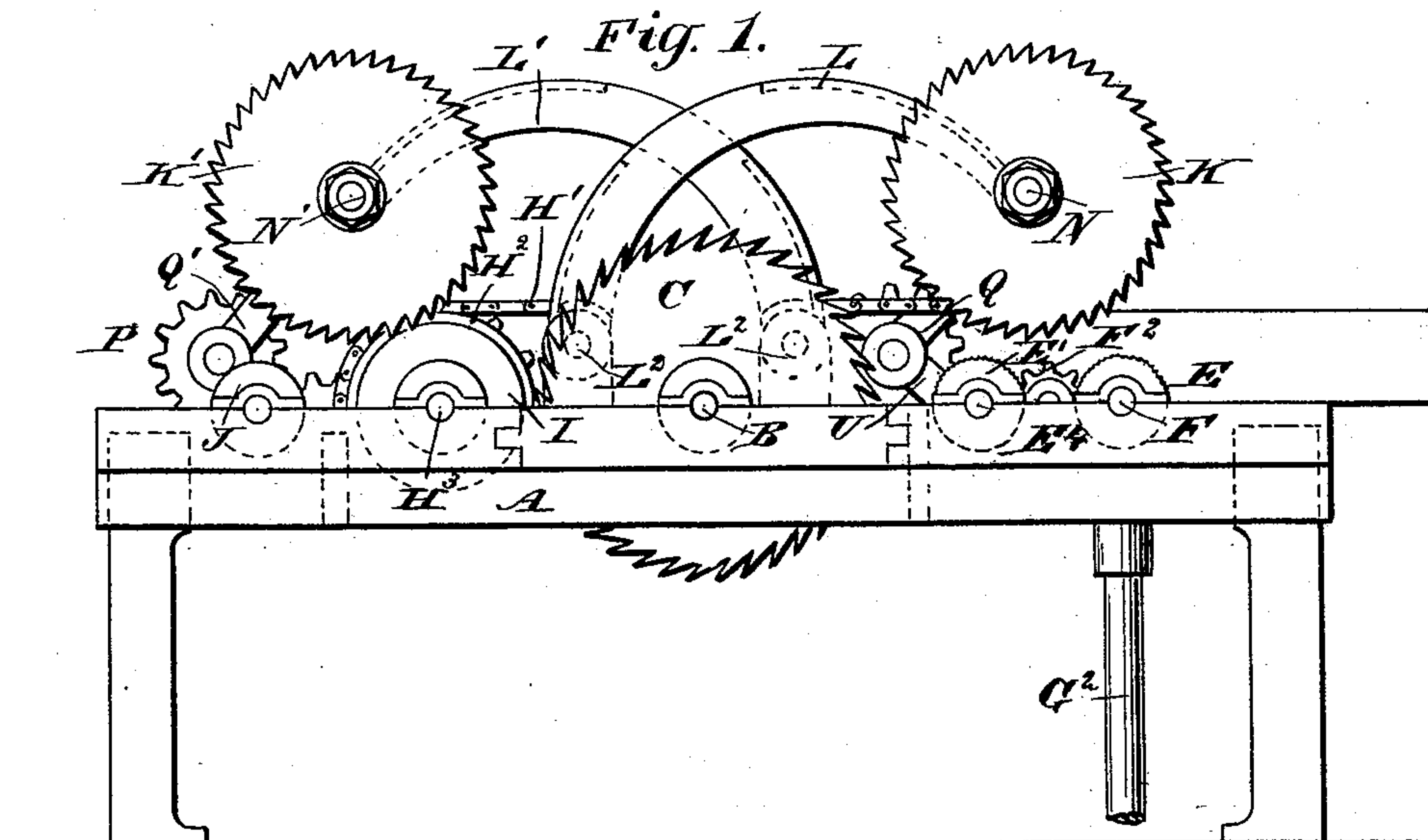
(No Model.)

3 Sheets—Sheet 1.

J. H. PETERSON.
LATH BOLTER.

No. 477,956.

Patented June 28, 1892.



WITNESSES:

J. H. Cuswell
E. M. Clark

INVENTOR:

John H. Peterson
BY *Munn & Co*

ATTORNEYS.

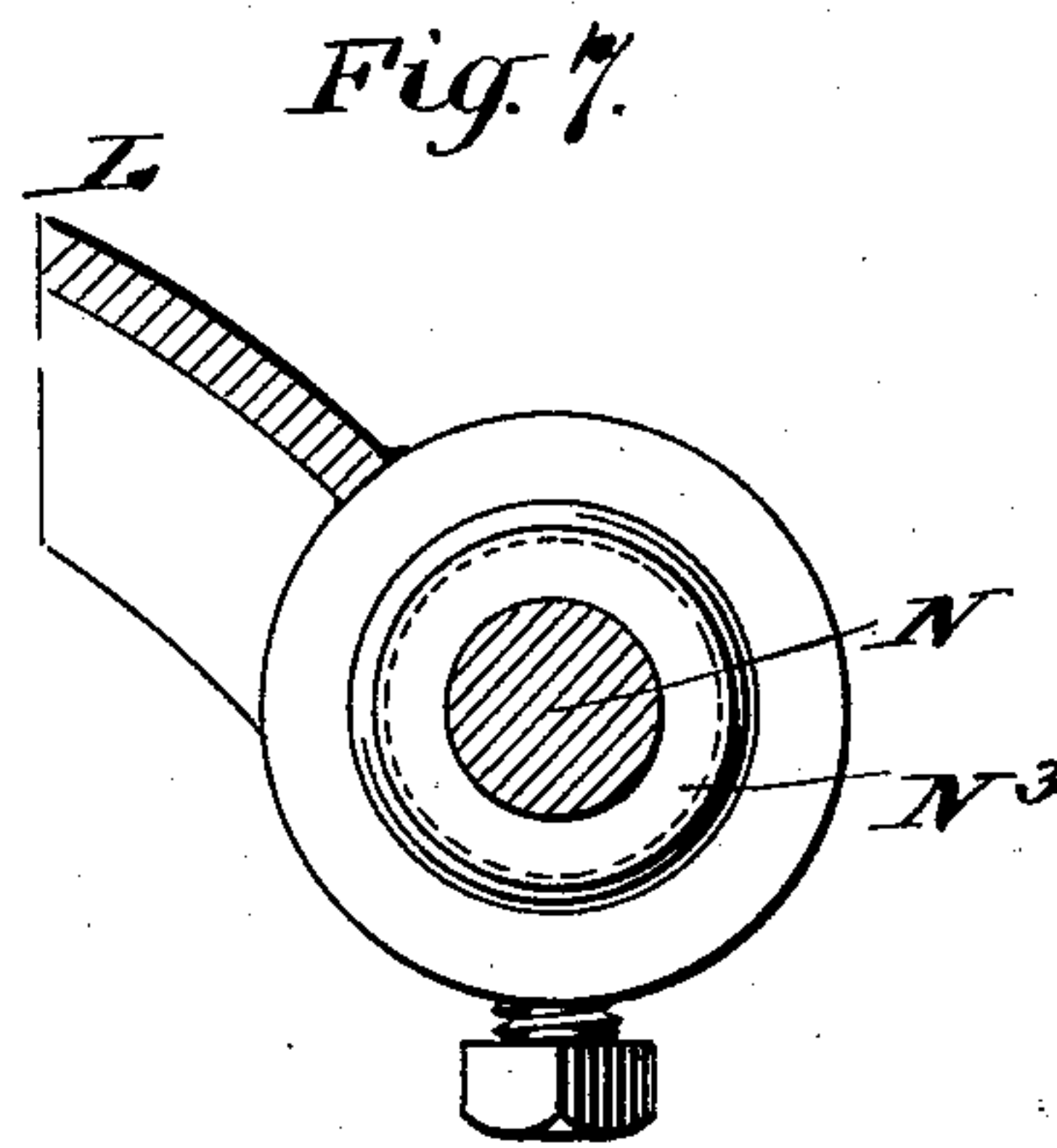
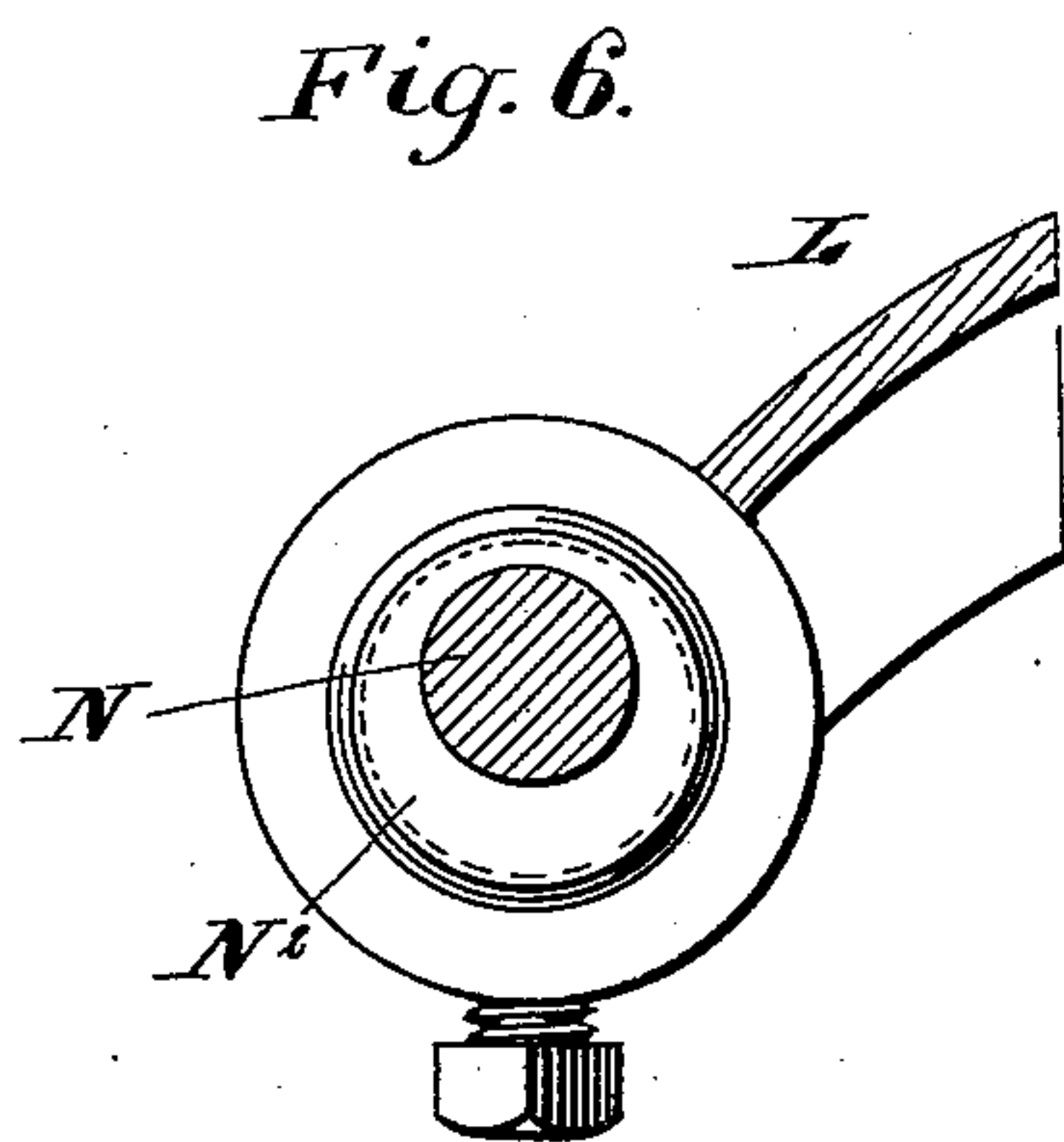
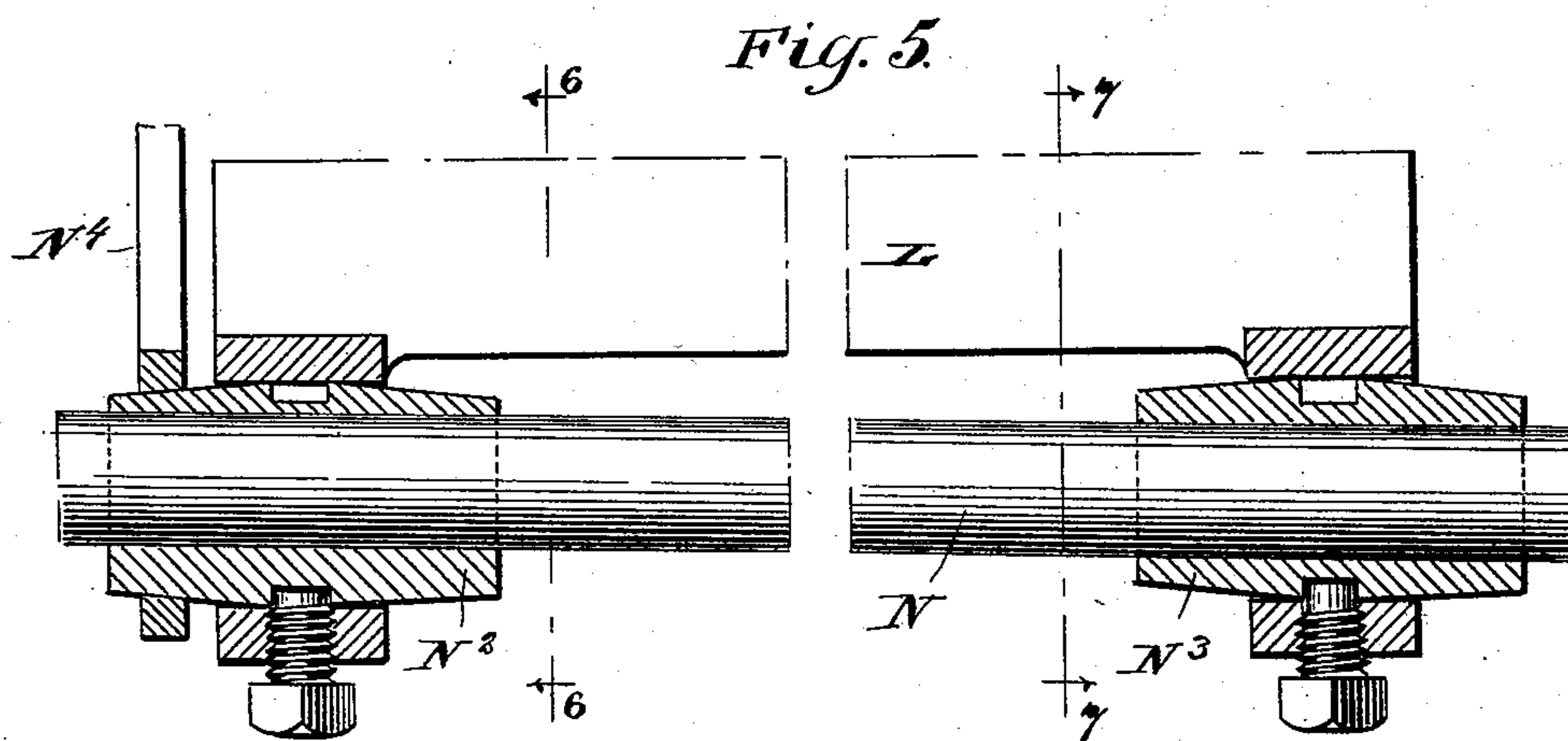
(No Model.)

3 Sheets—Sheet 3.

J. H. PETERSON.
LATH BOLTER.

No. 477,956.

Patented June 28, 1892.



WITNESSES:

J. A. Griswell.
L. Sedgwick

INVENTOR

J. H. Peterson
BY *Munn & Co.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN H. PETERSON, OF PORTLAND, OREGON.

LATH-BOLTER.

SPECIFICATION forming part of Letters Patent No. 477,956, dated June 28, 1892.

Application filed February 3, 1892. Serial No. 420,162. (No model.)

To all whom it may concern:

Be it known that I, JOHN HENRY PETERSON, of Portland, in the county of Multnomah and State of Oregon, have invented a new and Improved Lath-Bolter, of which the following is a full, clear, and exact description.

The invention relates to wood-working machines; and its object is to provide a new and improved lath-bolter, which is simple and durable in construction and very effective in operation.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement. Fig. 2 is an end elevation of the same. Fig. 3 is a plan view of the same with parts broken out, and Fig. 4 is a rear elevation of the improvement. Fig. 5 is a broken sectional view of one of the top feed-roll shafts and its bearings. Figs. 6 and 7 are transverse sections on lines 6-6 and 7-7, respectively, of Fig. 5.

The improved lath-bolter is mounted on a suitably-constructed frame A, on which is journaled the arbor B, carrying the usual saws C and provided with a pulley D, connected with suitable machinery for imparting a rotary motion to the arbor, and consequently to the saws C. In front of the latter are arranged the bottom feed-rolls E and E', formed with corrugations extending transversely, as is plainly shown in Figs. 1 and 3. The outermost bottom feed-roll E is secured on a shaft F, connected by a train of gear-wheels F', F², and F³ with the shaft F⁴ of the other bottom feed-roll E', so that when the shaft F is rotated both feed-rolls E and E' rotate in unison.

On the shaft F is secured a bevel gear-wheel G, in mesh with a bevel-pinion G', fastened on the upper end of the vertically-extending shaft G², mounted at its upper end to turn in suitable bearings on the frame A. The lower end of the shaft G² carries a friction-disk G³, in frictional contact with the friction-wheel G⁴, mounted to slide on and to turn with a driving-shaft G⁵, connected with suitable ma-

chinery to impart a rotary motion to the said shaft. The friction-wheel G⁴ is held adjustably on the shaft G⁵, so that the contacting surface of the friction-wheel can be moved nearer to or farther from the center of the friction-disk G³ to increase or diminish the speed of the shaft G². It is understood that the rotary motion of the shaft G⁵ is transmitted by the friction-wheel G⁴ to the disk G³, so that the shaft G² is rotated, and the motion of the latter is transmitted by the pinion G' to the bevel gear-wheel G, held on the shaft F.

Next to the bevel gear-wheel G is secured on the shaft F a sprocket-wheel H, over which passes a sprocket-chain H', extending longitudinally and passing over a sprocket-wheel H², secured on the shaft H³, carrying the spreader-roll I, located in rear of the saws C. The spreader-roll I is of the usual construction and operates in conjunction with the saws C in the usual manner. In the rear of the spreader-roll I is journaled a loose roller J, for guiding the lath over the frame A.

Above the front bottom feed-rolls E and E' are arranged top feed-rolls K, and over the spreader I and roller J are arranged the similar top feed-rolls K', the two sets being arranged on arbors N and N', respectively, journaled in bearings held in frames L and L', respectively, pivoted at L² on top of the main frame A. The frames L and L' are arched or curved, as is plainly shown in Figs. 1 and 4, cross each other directly above the arbor B, as shown, and work independently one of the other, allowing all thickness of lumber to be put through machine.

The arbors N and N' are each journaled near the top feed-rolls K and K', respectively, in eccentric boxes N², while the other box N³ for each shaft is a ball-and-socket box. A lever N⁴ is connected with each eccentric box N² and serves to turn the latter to adjust the respective top feed-roll. In Fig. 5 the cam is adjusted to raise that end of the shaft N.

On the shafts N and N' are secured the gear-wheels O and O', respectively, in mesh with the gear-wheels P and P', respectively, the shafts of which are held on arms Q and Q', respectively, pivoted on the shafts N and N', respectively. The gear-wheels P and P' mesh in the gear-wheels R and R', respectively, the shafts of which are hung on arms

S and S', respectively, pivoted on the shafts of the gear-wheels P and P', respectively. The gear-wheels R and R' mesh into pinions T and T', respectively, secured on the shafts F and H³, and the shafts of the said gear-wheels R and R' are also pivotally connected by arms or links U and U', respectively, with the said shafts F and H³.

It will be seen that the rotary motion imparted to the shaft F is transmitted by the pinion T to the gear-wheel R and from the latter to the gear-wheel P, which latter rotates the large gear-wheel O, fastened on the shaft N, carrying the top feed-rolls K, so that the latter are set in motion at the time the bottom feed-rolls E and E' revolve. As the shaft F rotates the shaft H³ by the sprocket-wheels H and H² and the sprocket-chain H', the rotary motion of the said shaft H³ is transmitted by the train of gear-wheels T', R', P', and O' to the shaft N', carrying the rear top feed-rolls K', so that the latter rotate in unison with the spreader-roll I, as well as with the bottom feed-rolls E and E' and top feed-rolls K.

It will be seen that by swinging the frames L and L' farther up or down to raise or lower the top feed-rolls, as desired, the said top feed-rolls are still rotated from the respective shafts F and H³ as the train of gear-wheels held in the respective arms and links permit the up-and-down swinging motion of the arms without the gear-wheels being thrown out of mesh.

It is understood that by having live top rolls, two live bottom feed-rolls in front of the saws, and one live spreader-roll behind the saws the latter are prevented from throwing back cants after they have passed through the saws.

By employing the eccentric boxes N² lead

can be given to the top feed-roll, so as to hold square-edged lumber up hard against guide.

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

1. A lath-bolter consisting in the frame A, the saw-arbor B, carrying saws, the parallel lower feed-rolls E E' in front of the saws and having gearing F' F² F³, connecting them, the roller-shaft F, also having a sprocket-wheel H, a gear-wheel G, and a pinion T, the spreader I, having a shaft H³, provided with a sprocket-wheel H² and a pinion T', the chain H', connecting said sprockets, the two vertically-swinging frames L L', pivoted at L² to the upper side of the frame and carrying the shafts N N', provided with the upper feed-rolls K K' over feed-rolls E E' and spreader I, respectively, gear-wheels O O' on the rear ends of shafts N N', arms or links U U', S S', and Q Q', and gearing R R' P P', connecting the pinions T T', respectively, with the gear-wheels O O', respectively, and means for adjusting the shafts N N' in their respective frames, substantially as set forth.

2. A lath-bolter provided with a top feed-roll, an eccentric box, and a ball-and-socket box for the respective ends of the shaft of the said top feed-roll, substantially as shown and described.

3. In a lath-bolter, the combination, with an arched pivoted frame provided with an eccentric box and a ball-and-socket box, of a shaft journaled in the said boxes and a top feed-roll held on the said shaft, substantially as shown and described.

JOHN H. PETERSON.

Witnesses:

E. K. HOOVER,

M. F. HENDERSON.