

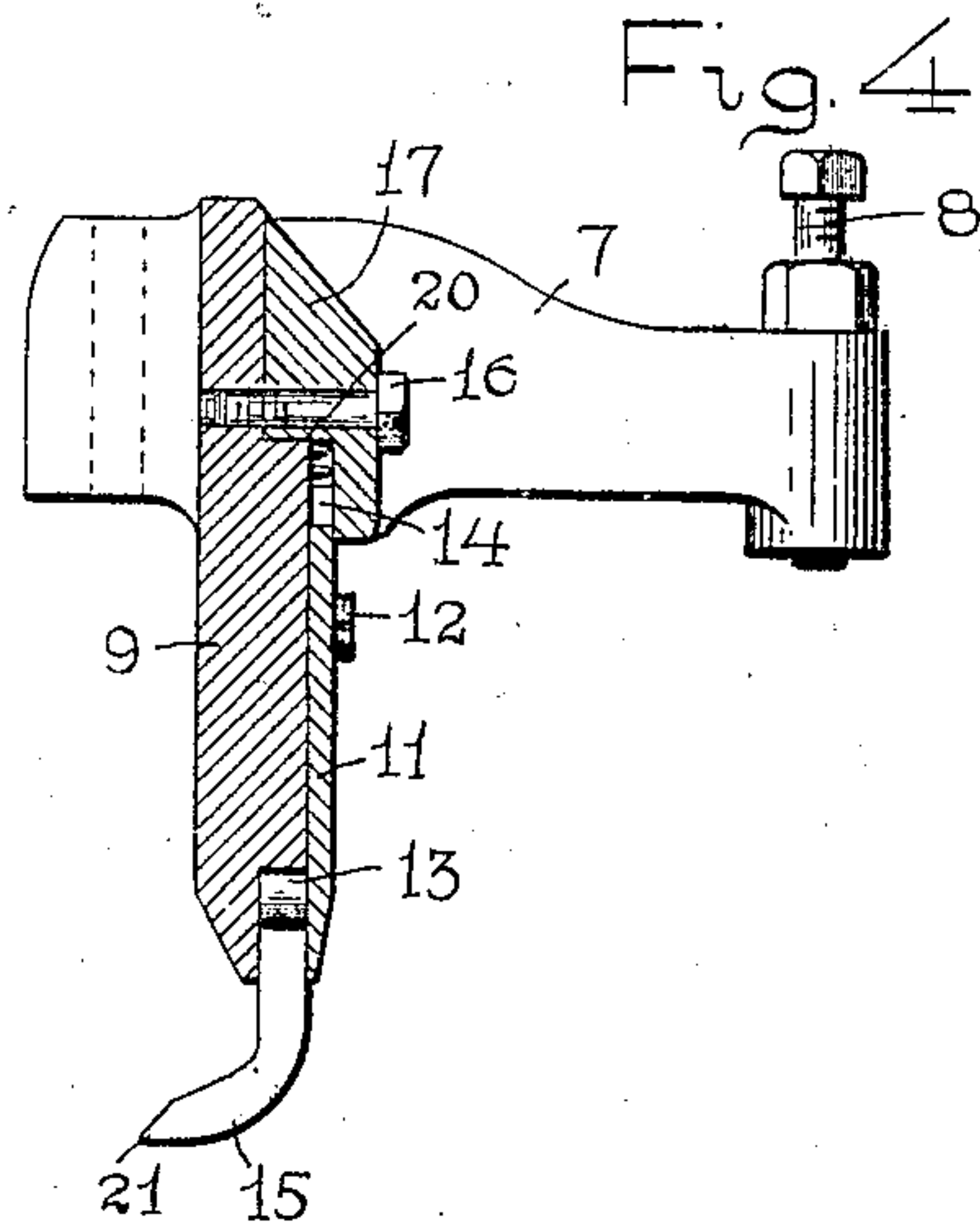
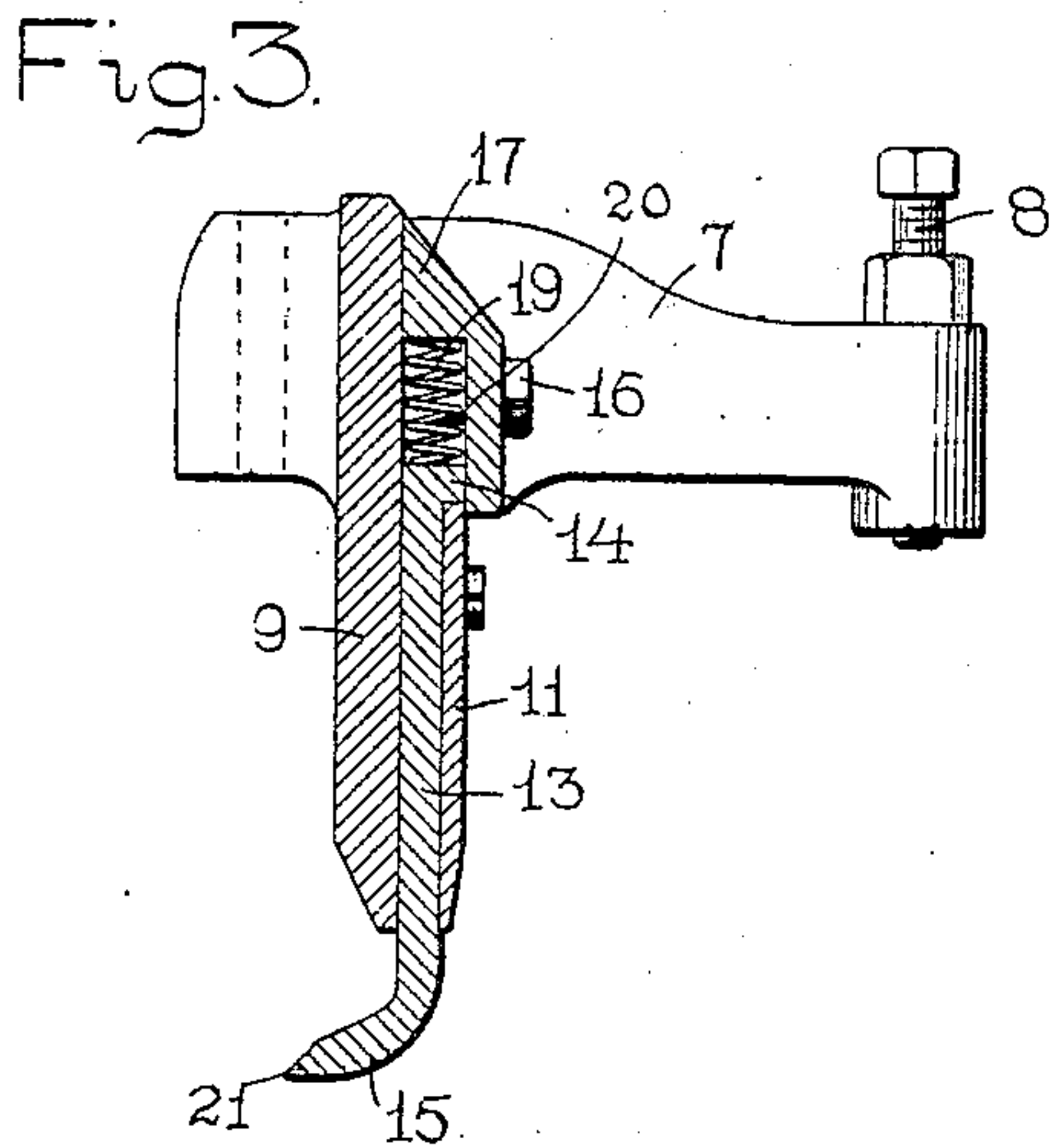
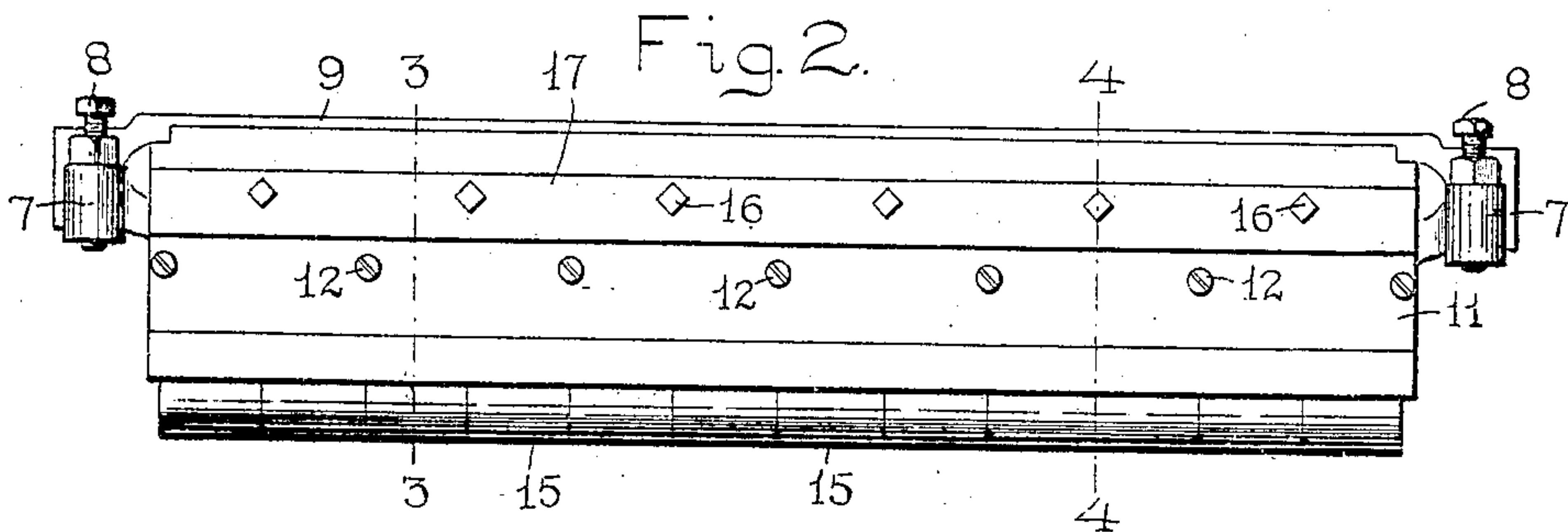
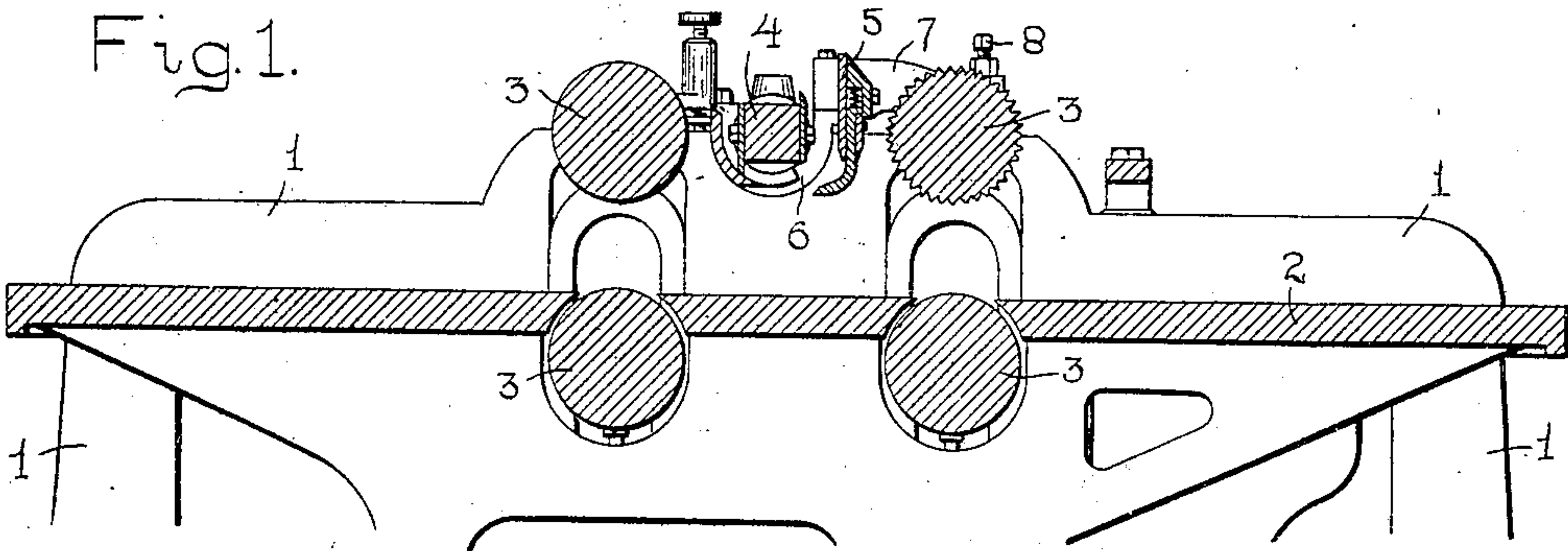
No. 832,264.

PATENTED OCT. 2, 1906.

B. S. LOVELAND.  
PRESSER BAR FOR PLANING MACHINES.

APPLICATION FILED FEB. 23, 1905.

2 SHEETS—SHEET 1.



Witnesses  
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Fig. 5.

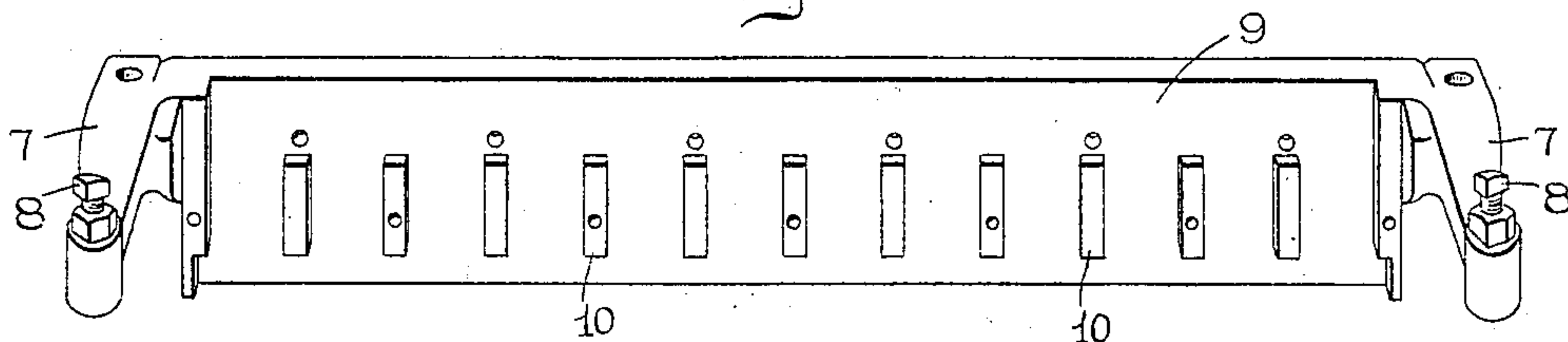


Fig. 6.

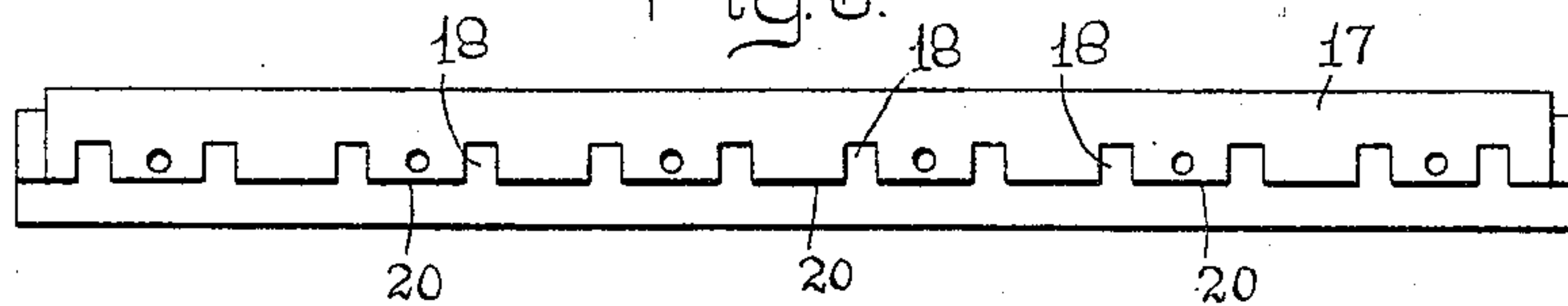
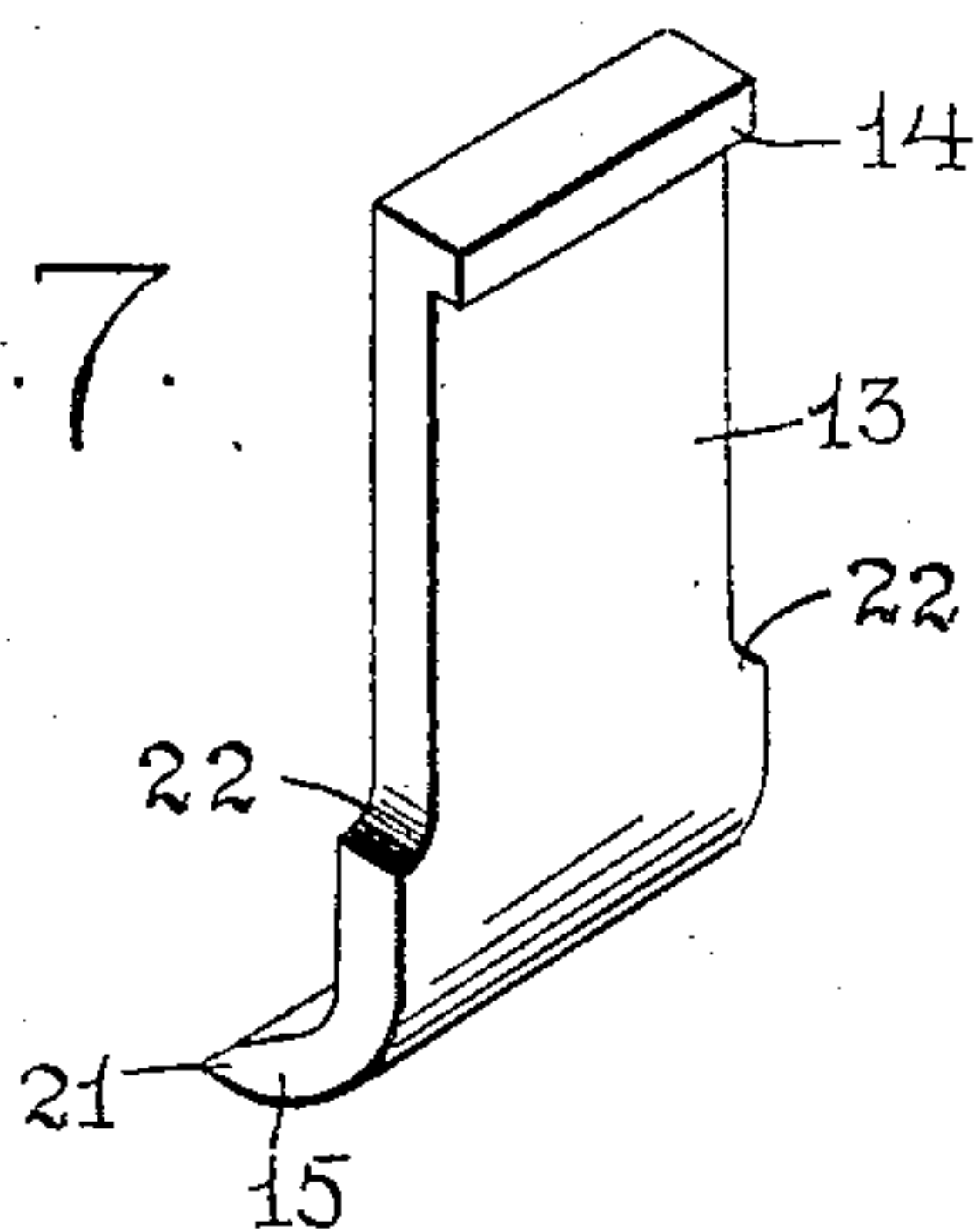


Fig. 7.



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# UNITED STATES PATENT OFFICE.

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FIRM OF BAXTER D. WHITNEY & SON, OF WINCHENDON, MASSACHU-  
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## PRESSER-BAR FOR PLANING-MACHINES.

No. 832,264.

Specification of Letters Patent.

Patented Oct. 2, 1906.

Application filed February 23, 1905. Serial No. 246,811.

*To all whom it may concern:*

Be it known that I, BYRON S. LOVELAND, a citizen of the United States, residing at Winchendon, in the county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Presser-Bars for Planing-Machines, of which the following is a specification, accompanied by drawings, forming a part of the same, in which—

Figure 1 is a central longitudinal sectional view of the upper portion of a planing-machine including the bed-plate, feed-rollers, cutting-cylinder, and presser-bar. Fig. 2 represents the presser-bar on a larger scale and detached from the machine. Fig. 3 is a vertical sectional view of the presser-bar on line 3 3, Fig. 2. Fig. 4 is a vertical sectional view of the presser-bar on line 4 4, Fig. 2. Fig. 5 is a perspective view of the presser-bar with the presser-feet and actuating-springs removed. Fig. 6 is a detached view of the cap-plate, showing the individual sockets for the actuating-springs; and Fig. 7 is a perspective view of one of the presser-feet.

Similar reference-figures refer to similar parts in the different views.

My invention relates to that class of presser-bars on the incoming side of the cutting-cylinder suitable to work in proximity to a revolving cutter and designed to bear upon and hold the lumber to be planed firmly to the bed-plate; and it consists in the construction and arrangement of parts by which different sections of the presser-bar may rise and fall to correspond quickly to the ordinary inequalities of undressed lumber passing underneath, thereby securing an equable pressure upon the lumber as close as possible to the cut and extending across its whole width. I gain the elastic or yielding quality thus required by making the bearing-surface of the presser-bar, which is in contact with the lumber, of a multiplicity of presser-feet sliding in individual ways in a rigid bar and each foot provided with a spring whose tension holds the presser-foot firmly upon the surface of the board. The presser-bar itself is rigid and holds the presser-feet securely to prevent their deflection, while the yielding presser-foot forms a distributive pressure-regulator for the presser-bar.

Referring to the accompanying drawings, 1 denotes the frame of the planing-machine, 2 the bed-plate, and 3 the feed-rollers for advancing the work to be planed.

4 is the revolving cutter, and 5 is a presser-bar at the incoming side of the cutter and embodying my invention. The presser-bar 5 is mounted at each end upon curved arms 6, capable of sliding in curved slots in the frame of the machine, concentric with the axis of the revolving cutter 4. The presser-bar is further provided with arms 7, carrying adjusting-screws 8.

My improved presser-bar comprises a rigid plate 9, which extends transversely across the bed of the machine and is provided on one side with a series of parallel ribs 10, which are covered by a cover 11, attached by screws 12 to the faces of the ribs 10. The spaces between the ribs 10 and the plate 9 and cover 11 form ways for slidable plates 13, which are provided at their upper ends with lips 14, which project over the upper edge of the cover and limit the downward movement of the plates 13. The lower ends of the plates 13 terminate in curved feet 15, which are adapted to press upon the upper surface of the material as it is fed to the revolving cutter 4.

Attached to the plate 9 by bolts 16 is a cap 17, provided with a series of recesses 18, corresponding to the ways for slidable plates 13, to receive spiral springs 19, which press against the upper ends of each of the plates 13 and impart a yielding pressure to the feet 15 against the material as it passes beneath them, causing each of the presser-feet 15 to be held in constant contact with the surface of the material planed. The feet 15 are preferably extended in width on opposite sides of the plates 13, as at 22 22, Fig. 7, in order to make the bearing-surface substantially continuous throughout the entire length of the presser-bar.

As each presser-foot is distinct in its operation, any one can be raised and the corresponding spring compressed by an inequality in the surface of the material passing beneath it without raising any of the others. An equable pressure is thereby continually maintained upon the entire width of the material, yet each individual presser-foot pos-



sesses sufficient yielding capacity to fit itself to the varying inequalities of the material to be planed. The sliding movement of each of the plates 13 is limited by the contact of the  
5 overhanging lip 14 with the upper edge of the cover 11, and the upward sliding movement of each of the plates 13 is limited by the contact of the upper end of the plate with the shoulder 20 on the cap 17, the spiral springs  
10 19 being then compressed into the sockets 18. Any further lifting movement of the feet 15 will cause the presser-bar to swing concentrically with the axis of the revolving cutter 4. The feet 15 are extended toward the cut-  
15 ter 4 in order to bring the pressure of the toes 21 as near the revolving cutters as possible, and the under side of the foot is rounded at the rear side or heel to facilitate the movement of the material to be planed beneath  
20 the foot.

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

1. In a presser-bar for planing-machines, the combination with a rigid plate provided  
25 on one side with a series of parallel ribs, of

presser-feet arranged to slide between said parallel ribs, a removable cover for said ribs and said presser-feet.

2. In a presser-bar for planing-machines, the combination with a rigid plate provided  
30 with a series of parallel ribs, of a removable cover for said ribs, and presser-feet arranged to slide in the ways formed between said plate, ribs and cover, and adapted to engage said cover in order to limit the downward  
35 motion of said presser-feet.

3. In a presser-bar for planing-machines, the combination with a rigid plate provided on one side with a series of parallel ribs, a removable cover for said ribs, a cap for said  
40 rigid plate overlapping said cover, said cap provided with recesses, spiral springs in said recesses adapted to press against the upper ends of presser-feet, and presser-feet sliding between said ribs.

Dated this 20th day of February, 1905.

BYRON S. LOVELAND.

Witnesses:

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