

No. 689,386.

Patented Dec. 24, 1901.

S. L. BURGER.  
VEHICLE BRAKE.

(Application filed June 1, 1901.)

(No Model.)

2 Sheets—Sheet 1.

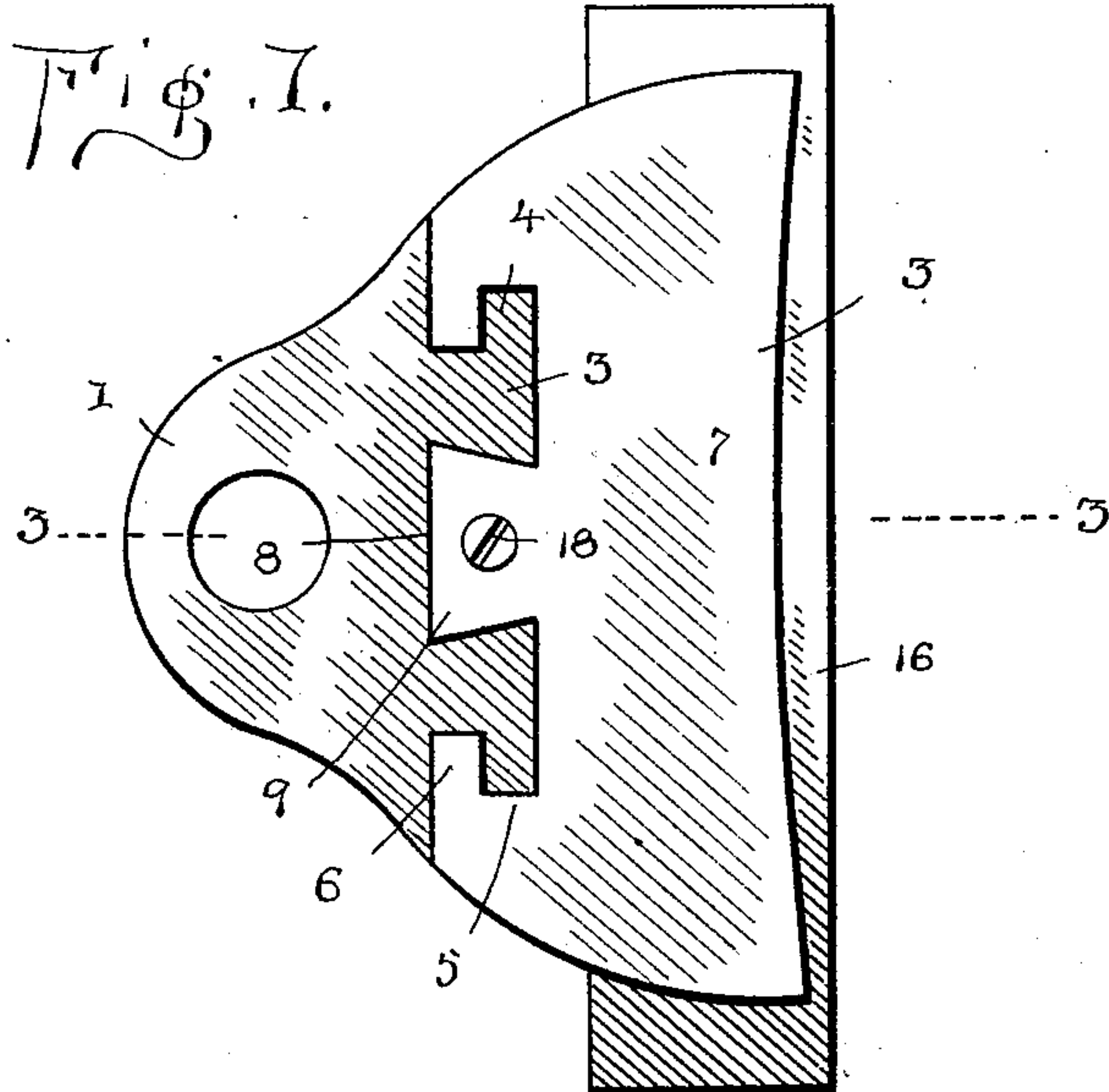
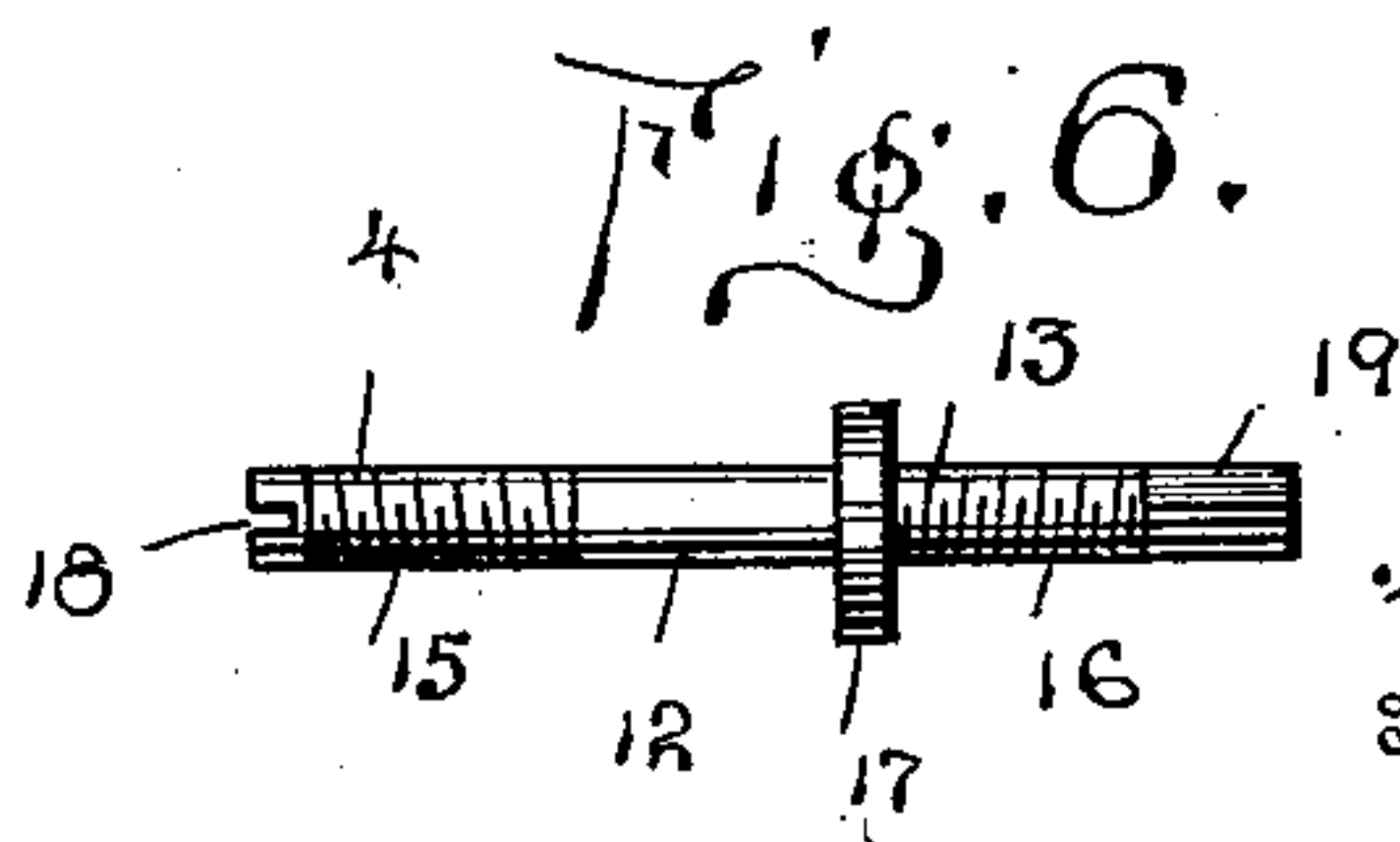
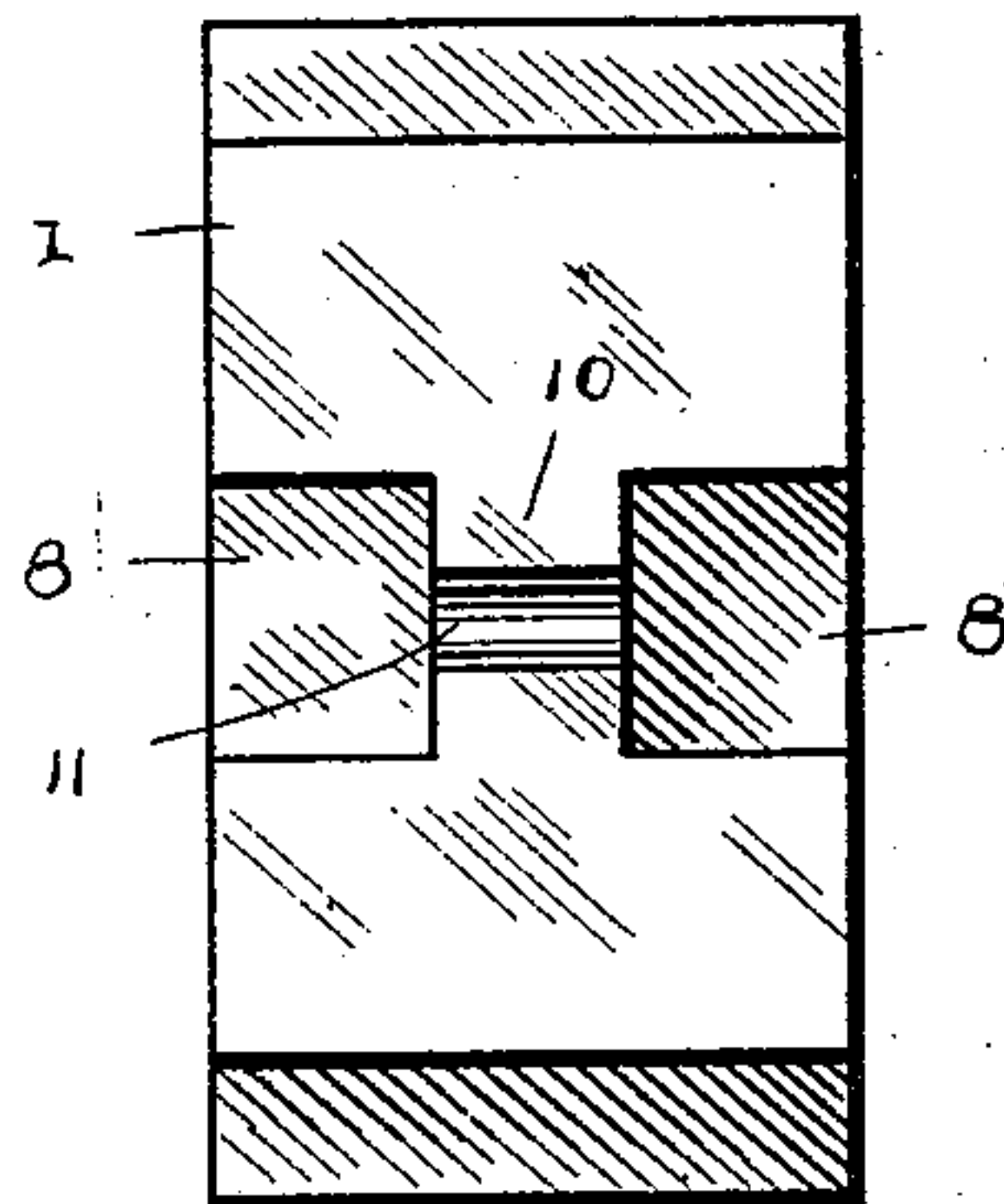
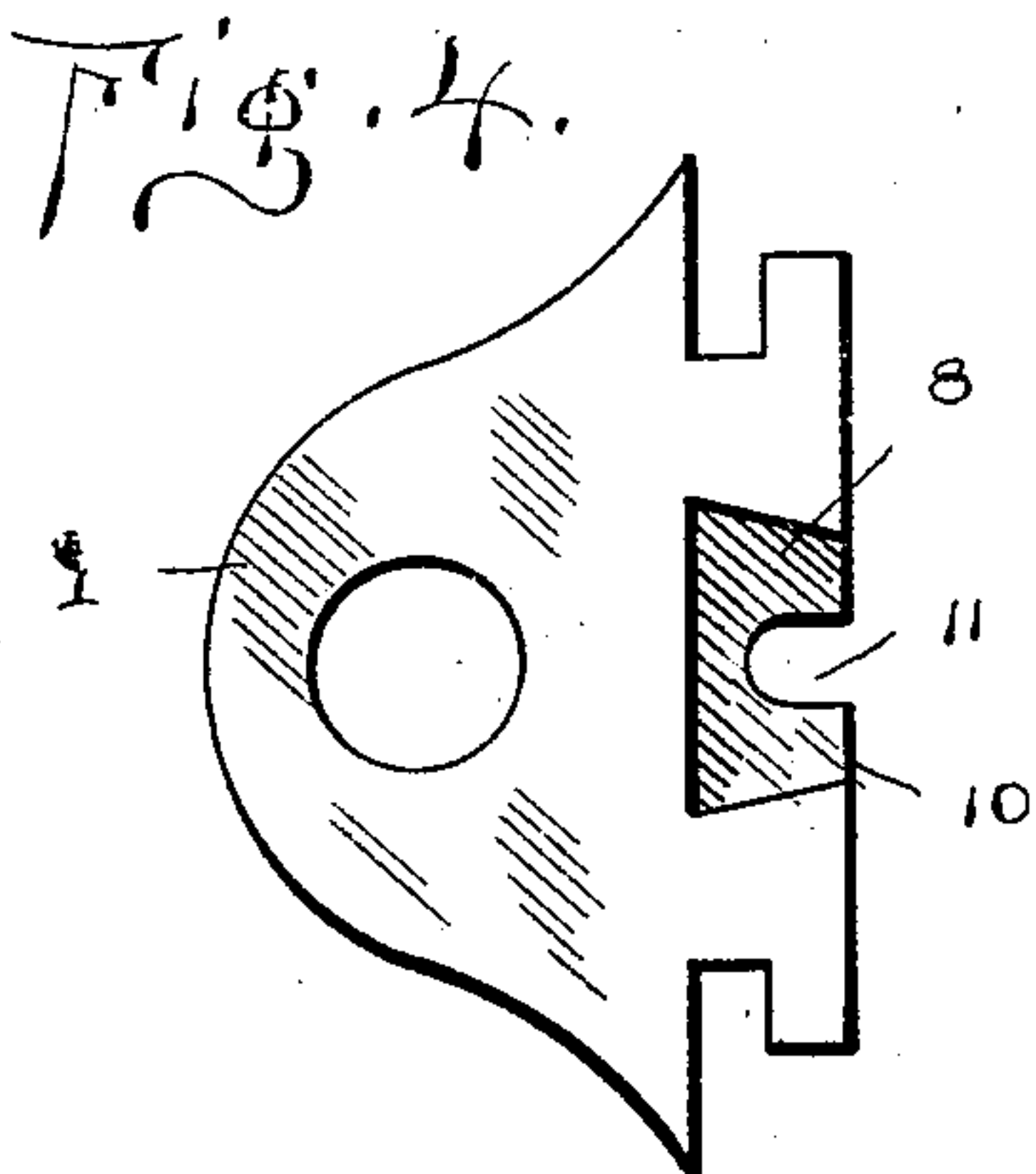


Fig. 5.



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Fig. 7.

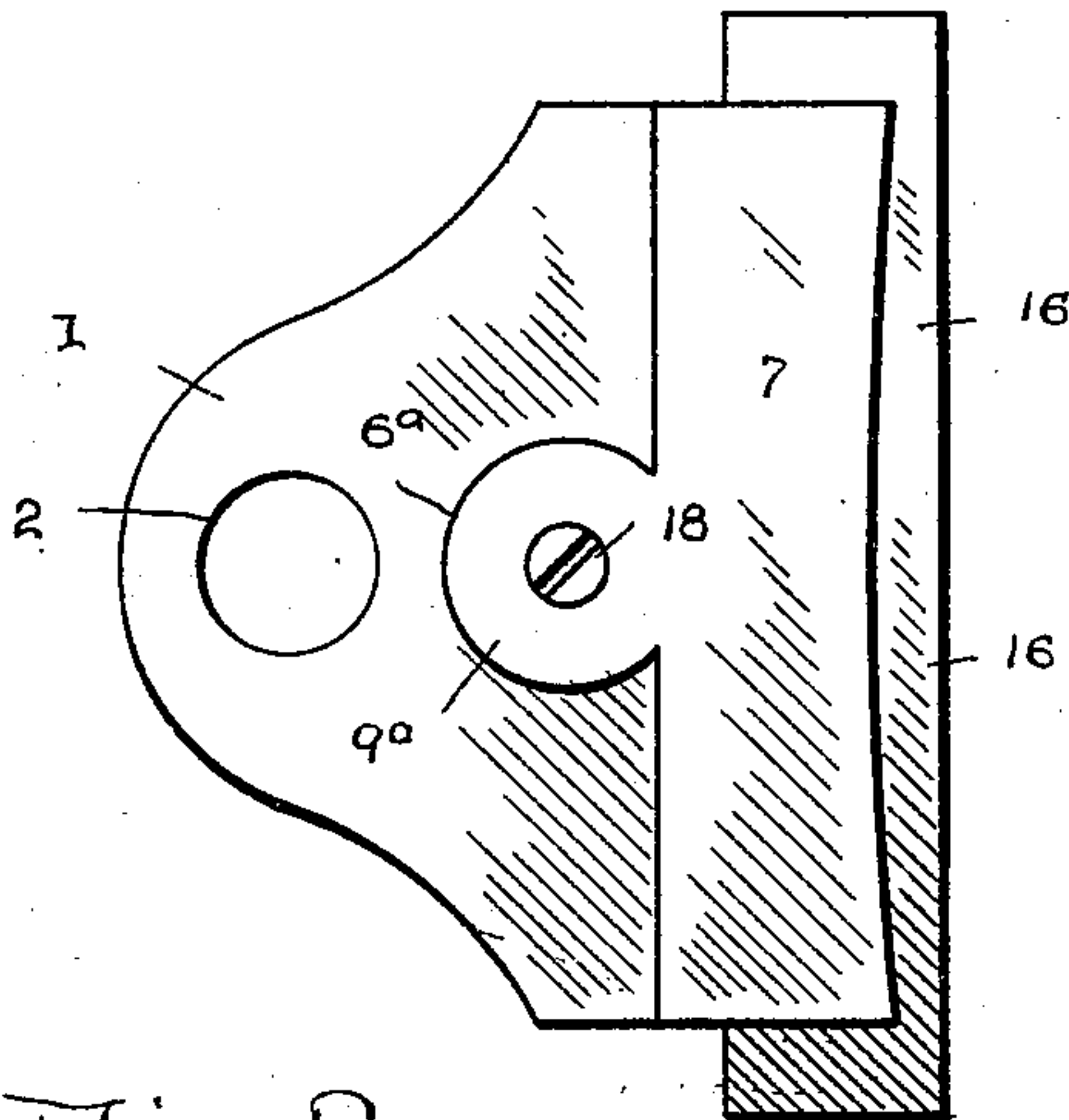


Fig. 2.

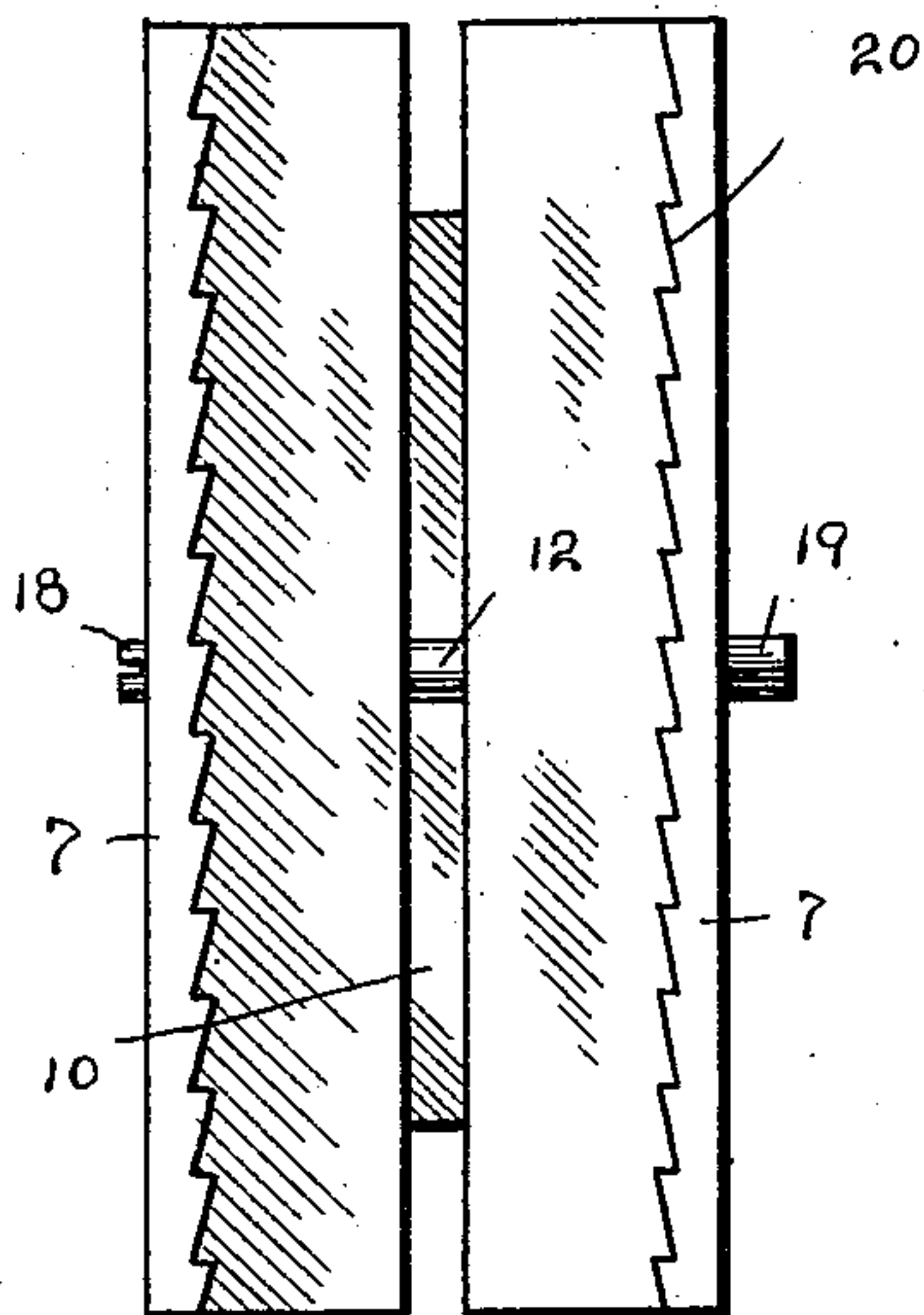
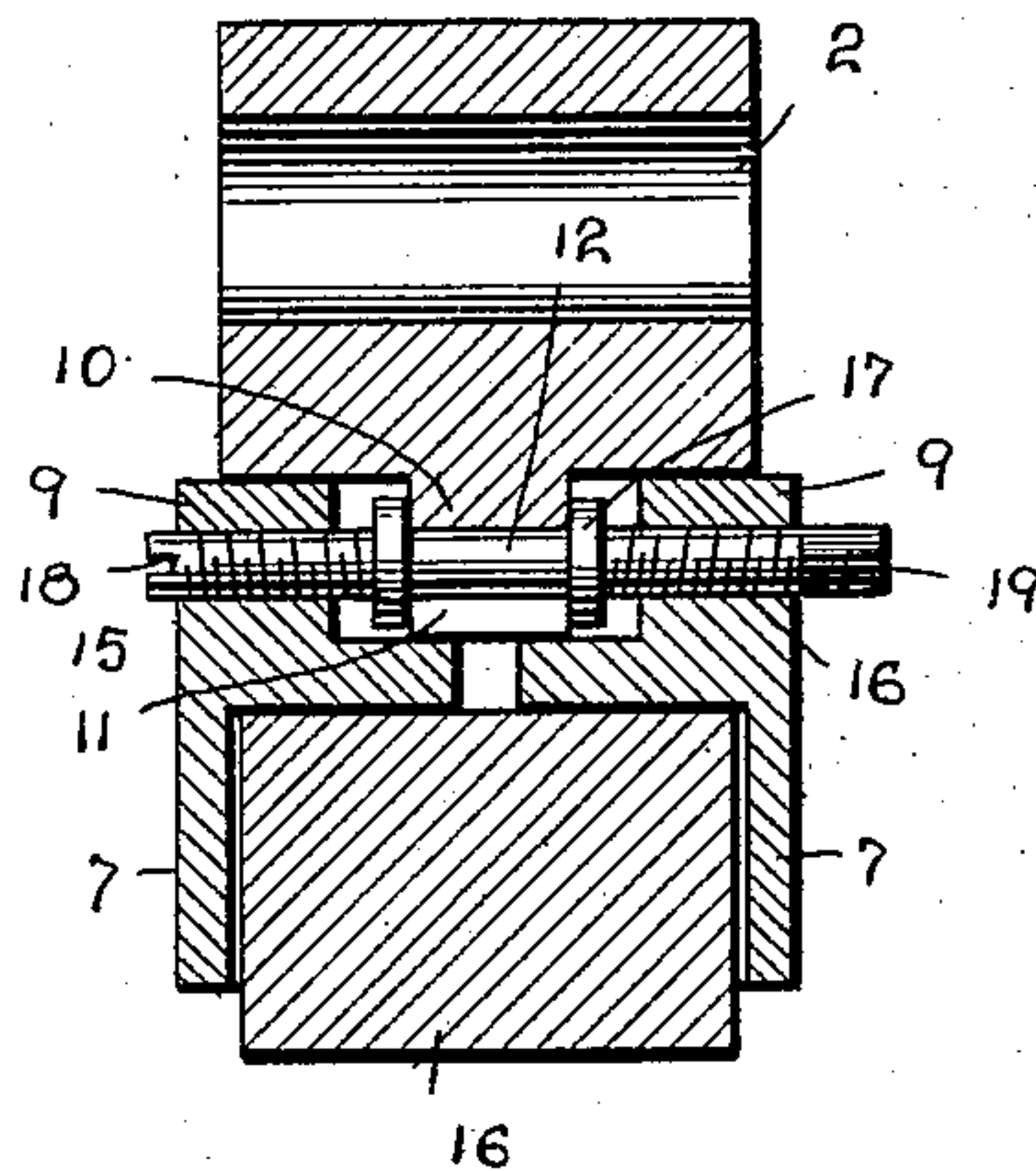


Fig. 3.



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# UNITED STATES PATENT OFFICE.

SAMUEL LLOYD BURGER, OF IDAHO SPRINGS, COLORADO.

## VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 689,386, dated December 24, 1901.

Application filed June 1, 1901. Serial No. 62,762. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL LLOYD BURGER, a citizen of the United States, residing at and whose post-office address is Idaho Springs, in the county of Clear Creek and State of Colorado, have invented new and useful Improvements in Vehicle-Brakes, of which the following is a specification.

This invention relates to improvements in vehicle-brakes, and more particularly to brake-blocks; and its object is to provide a block having a removable brake-shoe, whereby a shoe in use may be readily detached when worn and a new one substituted therefor, and to provide improved connecting means between the brake-block and clamping-jaws by means of which said jaws will be held securely in position upon the block.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a brake-block embodying my invention. Fig. 2 is a front elevation of the same with the shoe removed. Fig. 3 is a horizontal transverse section on line 3 3 of Fig. 1. Fig. 4 is a side elevation of the brake-block. Fig. 5 is a front elevation of the same. Fig. 6 is a detail view of the clamping-screw. Fig. 7 is a view similar to Fig. 1, showing a modification.

Referring more particularly to the drawings, the numeral 1 designates the brake-block, formed with an eye or socket 2, whereby it is adapted to be fitted upon or applied to the brake-beam. Projecting from the front face of the block are spaced transverse ribs 3, provided with laterally-extending tongues 4, which ribs interlock with corresponding ribs 5 and tongues 6 upon two opposing clamping-jaws 7, having a sliding engagement therewith. The inner walls of the two ribs 3 are beveled to form between them dovetailed mortises or recesses 8, in which are slidably fitted dovetailed tenons 9, formed upon the rear faces of the jaws 7 intermediate the said ribs 5 and tongues 6.

The dovetailed sockets or mortises 8 are separated by a central bearing-partition 10, which is formed with an open bearing 11 to receive the central smooth or unthreaded portion 12 of the clamping-screw 13. This screw extends transversely in said open bearing across the block and through the dove-

tailed tenons 9 of the clamping-jaws 7 and is formed with right and left threaded portions 14 and 15, working in correspondingly-threaded openings in said tenon, whereby when the screw is turned in one direction or the other the jaws will be simultaneously moved toward or from each other to clamp or release the removable brake-shoe 16, which is designed to be clamped by and held between them. The adjusting-screw has a central head 17, as shown in Fig. 6, or two heads 17, as shown in Fig. 3, to bear upon one or both sides of the bearing-partition 10 to hold it against endwise movement. One end of the screw is grooved or nicked, as shown at 18, to receive the bit of a screw-driver, and the other end 19 thereof is made rectangular in form to form a gripping-surface for application thereto of a wrench, by means of which the screw may be applied to, disengaged from, and adjusted to draw the jaws toward each other or spread them apart through the medium of tools which are readily procurable.

From the foregoing description it will be readily seen that when the parts are assembled in the manner shown in Figs. 1 and 3 the jaws are adjustably mounted to slide toward and from each other to securely grip the brake-block 16 or disengage the same and are held against disengagement with the block 1 by the interlocking tongues 4 and 6 and by the dovetailed tenons 9. In order to insure the firm gripping of the brake-shoe or rubber, I preferably provide the inner faces of the jaws 7 with teeth 20, which are pointed or directed upwardly, so as to prevent the shoe from being forced downward between and through the jaw under the action of the wheel when the brake-shoe is brought to bear thereon.

In the modified construction of brake-shoe shown in Fig. 7 the interlocking ribs and tongues 3 and 4 and 5 and 6 are dispensed with, and the sockets or mortises 6<sup>a</sup> are made nearly circular in form to receive the correspondingly-shaped tenons 9<sup>a</sup>, which, like the dovetailed sockets and tenons shown in the other figures, are adapted to hold the jaws connected with the brake-block. This construction is designed more especially for use upon light buggies, while that shown in Fig. 1 is intended for heavier vehicles.



This invention is advantageous in providing a brake-shoe which is simple and cheap of construction, durable, and capable of being easily manufactured and in which the jaws which clamp the shoe or rubber to the block are held firmly in engagement with the block against casual displacement.

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

1. A brake-shoe comprising a block formed with side mortises separated by an intermediate partition provided with an open bearing, clamping-jaws formed with tenons to enter said mortises and having a sliding engagement therewith, a shoe adapted to be removably clamped between the jaws, and an adjusting-screw in said open bearing and working in corresponding openings in the tenons, to draw the jaws toward each other or spread them apart.

2. A brake-shoe comprising a block formed with dovetailed side mortises separated by an intermediate partition provided with an open bearing, clamping-jaws formed with dovetailed tenons to enter said dovetailed mortises and having a sliding engagement therewith, a shoe adapted to be removably clamped be-

tween the jaws, and an adjusting-screw mounted in said open bearing, and working in corresponding openings in the tenons, to draw the jaws toward each other or spread them apart.

3. A brake-shoe comprising a block formed with side mortises and spaced transverse ribs having laterally-extending tongues, an intermediate partition provided with an open bearing, separates said mortises, clamping-jaws formed with tenons, correspondingly-spaced ribs and tongues to enter said mortises, to receive said tongues, and enter said ribs respectively and having a sliding engagement therewith, a shoe adapted to be removably clamped between the jaws, and an adjusting-screw having an unthreaded portion mounted in said open bearing, one or more shoulders to abut against said partition to hold it against endwise movement, and right and left threaded portions working in corresponding openings in the tenons.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL LLOYD BURGER.

Witnesses:

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W. KLUMKER.