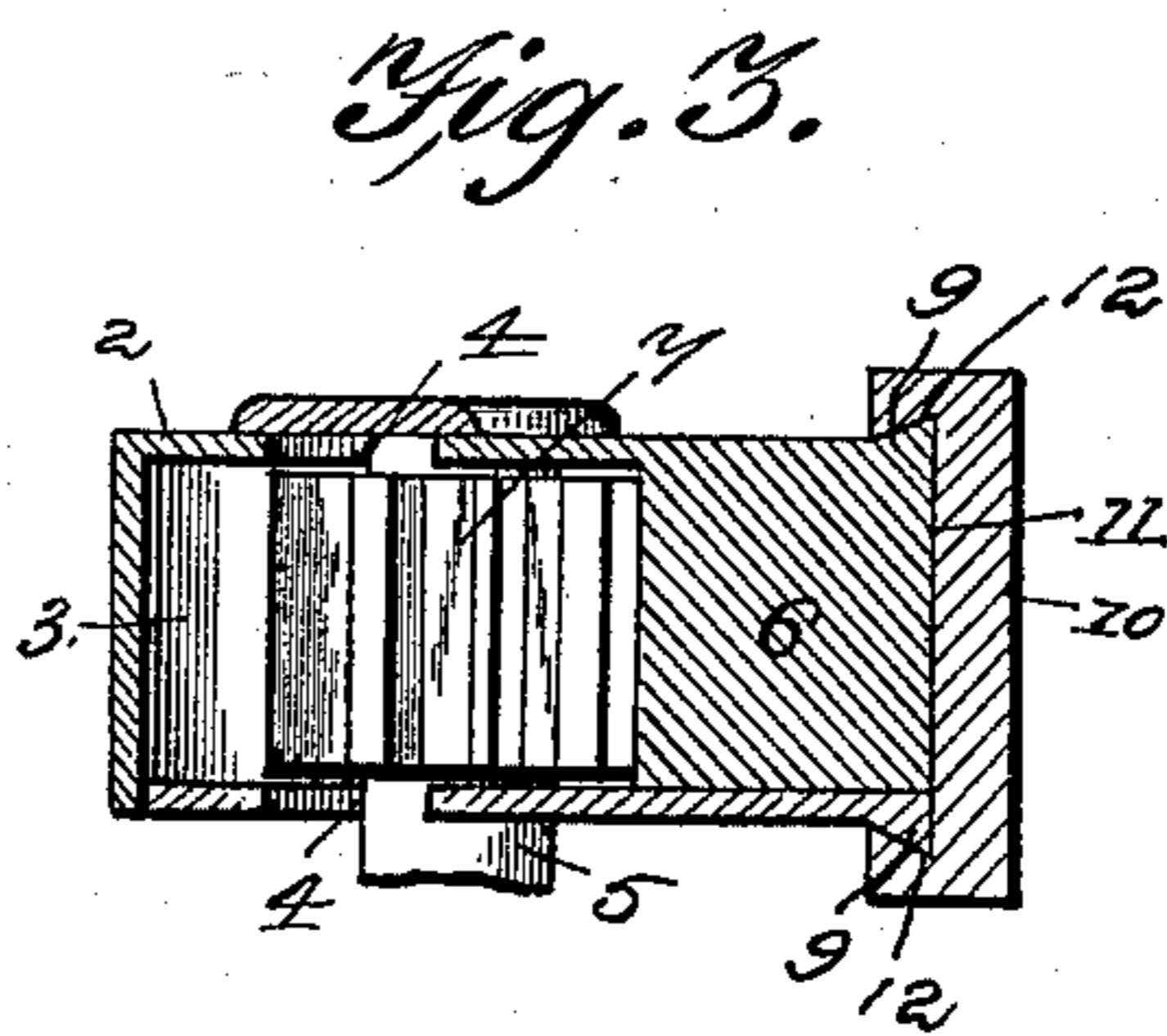
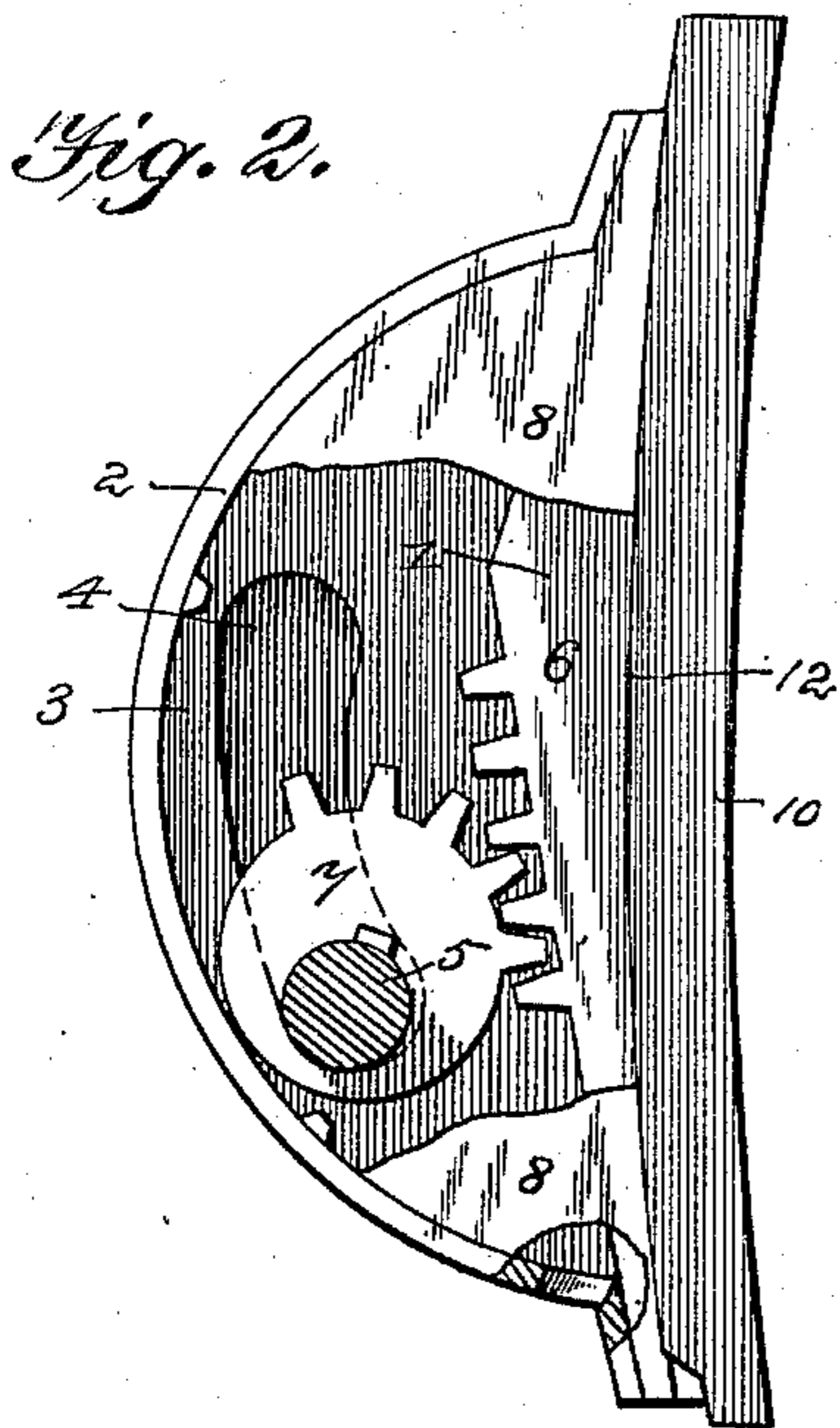
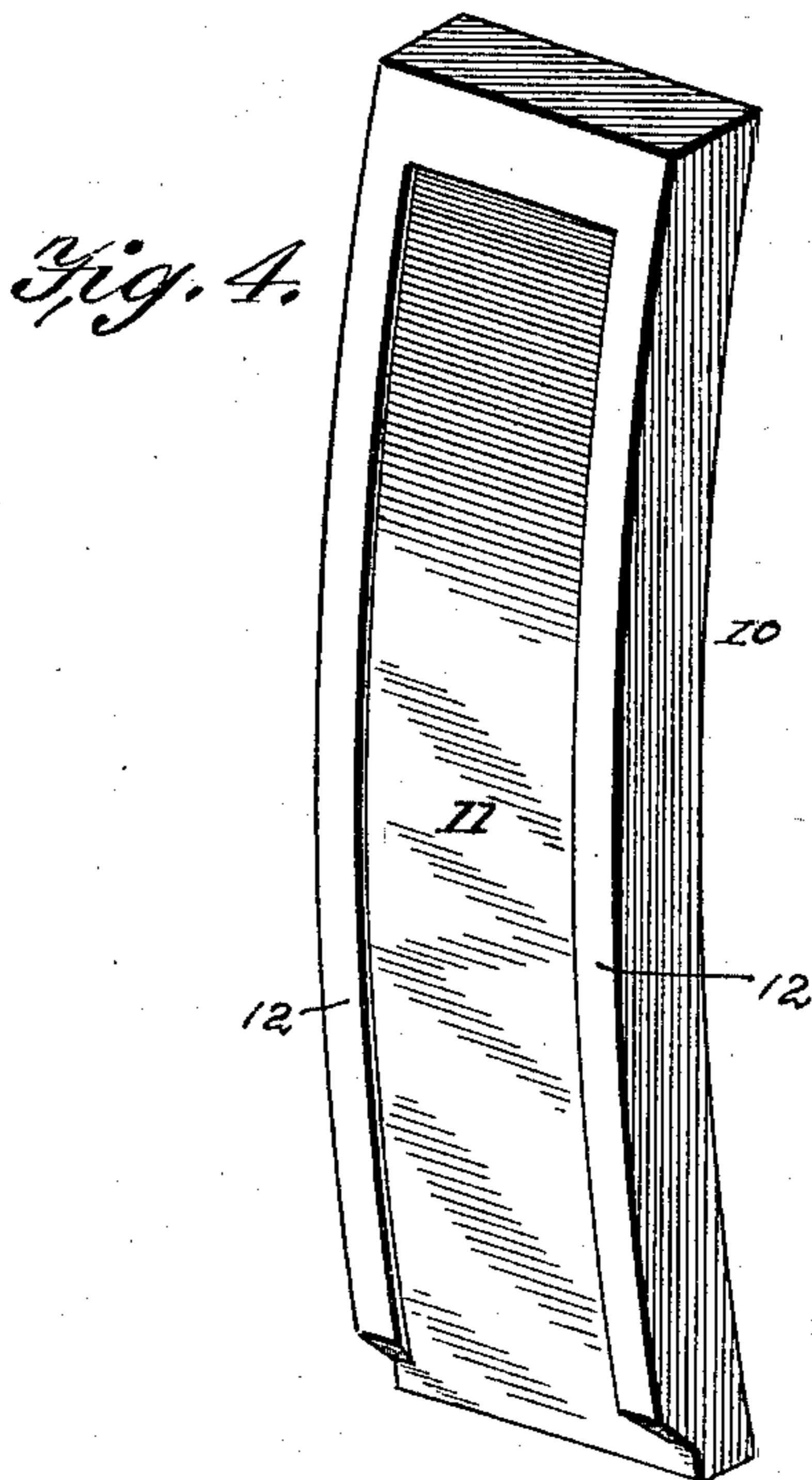
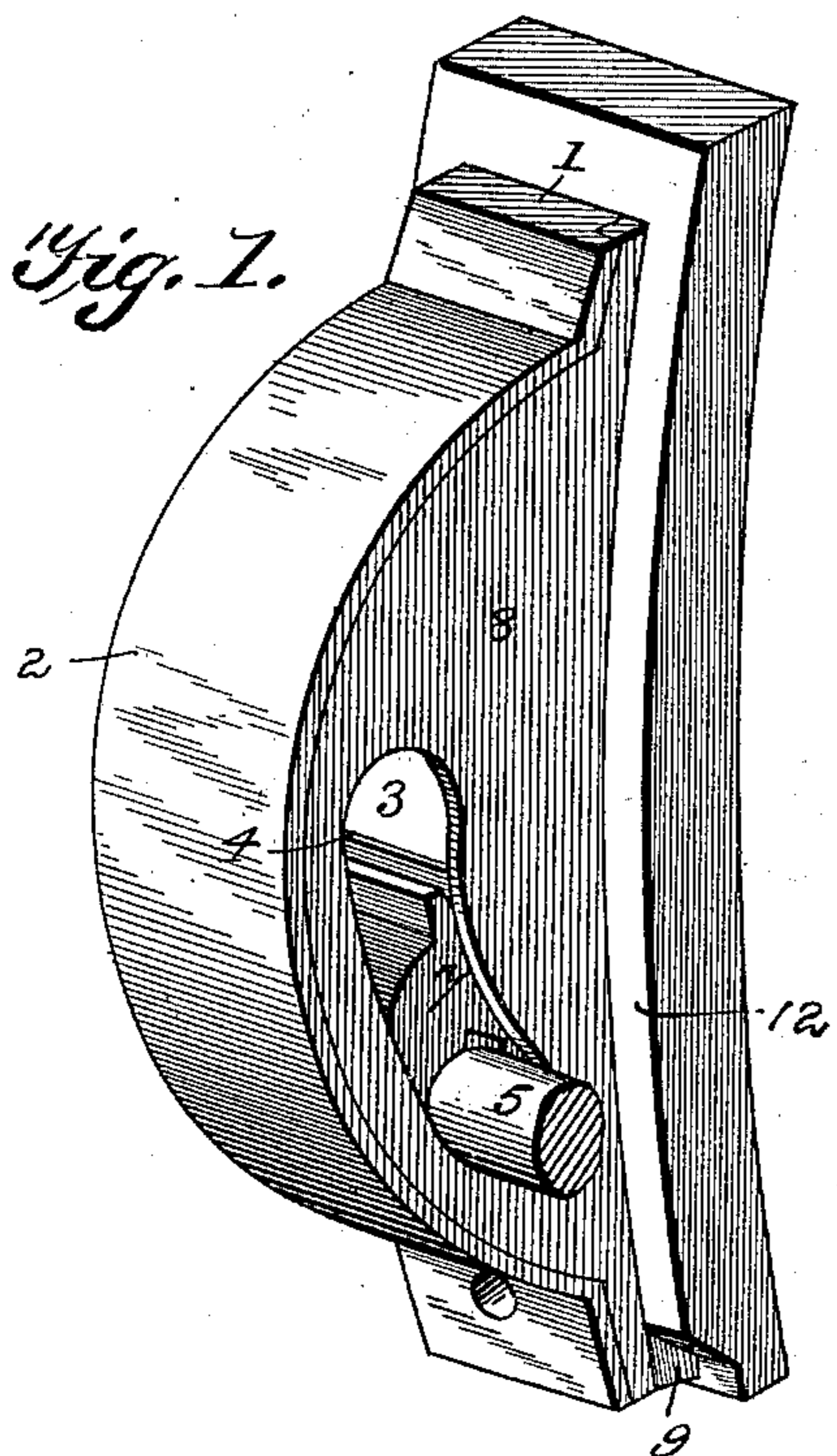


(No Model.)

W. H. SAUVAGE & R. J. FUQUA.  
BRAKE BLOCK.

No. 544,830.

Patented Aug. 20, 1895.



Witnesses

*E. H. Morris.*  
*O. D. Hayes*

By their Attorneys.

Inventors  
*William H. Sauvage*  
*Richard J. Fuqua.*

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# UNITED STATES PATENT OFFICE.

WILLIAM H. SAUVAGE AND RICHARD J. FUQUA, OF DURANGO, COLORADO.

## BRAKE-BLOCK.

SPECIFICATION forming part of Letters Patent No. 544,830, dated August 20, 1895.

Application filed January 12, 1895. Serial No. 534,707. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM H. SAUVAGE and RICHARD J. FUQUA, citizens of the United States, residing at Durango, in the county of La Plata and State of Colorado, have invented a new and useful Brake-Block, of which the following is a specification.

Our invention relates to brake-blocks; and it has for its object to provide a simple and efficient device in which the shoe is forced or crowded against a wheel after application by the frictional contact therewith of the wheel in rotation.

Further objects and advantages of the invention will appear from the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a brake-block embodying our invention. Fig. 2 is a side view with the removable plate partly broken away. Fig. 3 is a transverse section. Fig. 4 is a detail view in perspective of the shoe.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a brake-block provided with an integral casing 2, which is cored to form a cavity 3, the walls of the cavity being provided with slots 4 for the reception of the revoluble brake-bar 5. The front wall of the cavity in the block is arranged at an inclination or divergence from the face of the block, said divergence being upward, and this inclined or divergent wall is provided with teeth to form a rack-bar 6, which is thus disposed at an inclination to or a divergence from the face of the shoe. Keyed upon the brake-bar 40 within the cavity of the block is a spur-gear 7, the teeth of which mesh with the teeth of the rack-bar. It will be seen that if the brake-bar is held from vertical movement and the face of the block is brought into contact with the rim of a rotating wheel by turning the brake-bar the block will be moved downward and the inclination of the rack will cause the face of the block to move toward the wheel and crowd against the rim thereof.

The cavity in the block is closed at one side by a removable plate 8, and the shoe is provided contiguous to its face with lateral, be-

veled, or dovetailed ribs 9, one of said ribs being formed upon the contiguous edge of said removable plate. The shoe 10 is provided in its rear or convex side with a dovetailed channel or seat 11 for the reception of the face of the block, the beveled or dovetailed lateral ribs on the block engaging the undercut flanges 12 at the side edges of the shoe. It will be seen that the shoe serves to hold the removable plate of the block in place, and that when worn said shoe may be removed and replaced by another without detracting from the operativeness of the device and at a small expense.

From the above description it will be seen that the improved brake-block has an automatic clamping action, which results upon bringing its face in contact with a moving surface, and therefore the brake may be used in connection with vehicle-wheels of all classes, including carriages, wagons, street-cars, &c. It will be seen, furthermore, that the construction is simple, in that the use of springs or other parts having a similar action is avoided.

The brake is especially suitable for use in connection with four-wheel car-trucks, which it is usually necessary to check when going in either direction, and by connecting duplicate sets of the improved brake-block in such a manner as to cause the strain upon one set to be communicated to the other the operation of an ordinary brake-lever will, without excessive exertion upon the part of the operator, apply the brakes to all of the wheels of the truck.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described our invention, we claim—

1. A brake-block having a cavity, the front wall of which is provided with a rack-bar arranged at an inclination to the face of the block, a rotatable brake-bar arranged in slots in the sides of the block, and a spur-gear fixed to the brake-bar and meshing with the teeth of the rack, substantially as specified.

2. The combination with a rotatable brake-bar, of a brake-block provided with a rack which is arranged at an inclination to the face

of the block and diverges therefrom toward its upper end, and a spur-gear fixed to the brake-bar and meshing with the rack, substantially as specified.

- 5 3. The combination with a rotatable brake-bar, of a brake-block having a cavity closed at one side by the removable-plate, a spur-gear fixed to the brake-bar and engaging a rack on the front wall of the cavity of the  
10 block, the block and the removable-plate thereof being provided adjacent to the face of the block with lateral beveled ribs, and a

removable-shoe provided with a dove-tailed or under-cut channel to receive the face of the block, substantially as specified. 15

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

WILLIAM H. SAUVAGE.  
RICHARD J. FUQUA.

Witnesses:

J. C. HENDERSON,  
S. L. G. ATKINSON.