

N. G. PILCHER.
CLUTCH FOR TRANSOM RODS.
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935,545.

Patented Sept. 28, 1909.

Fig. 1.

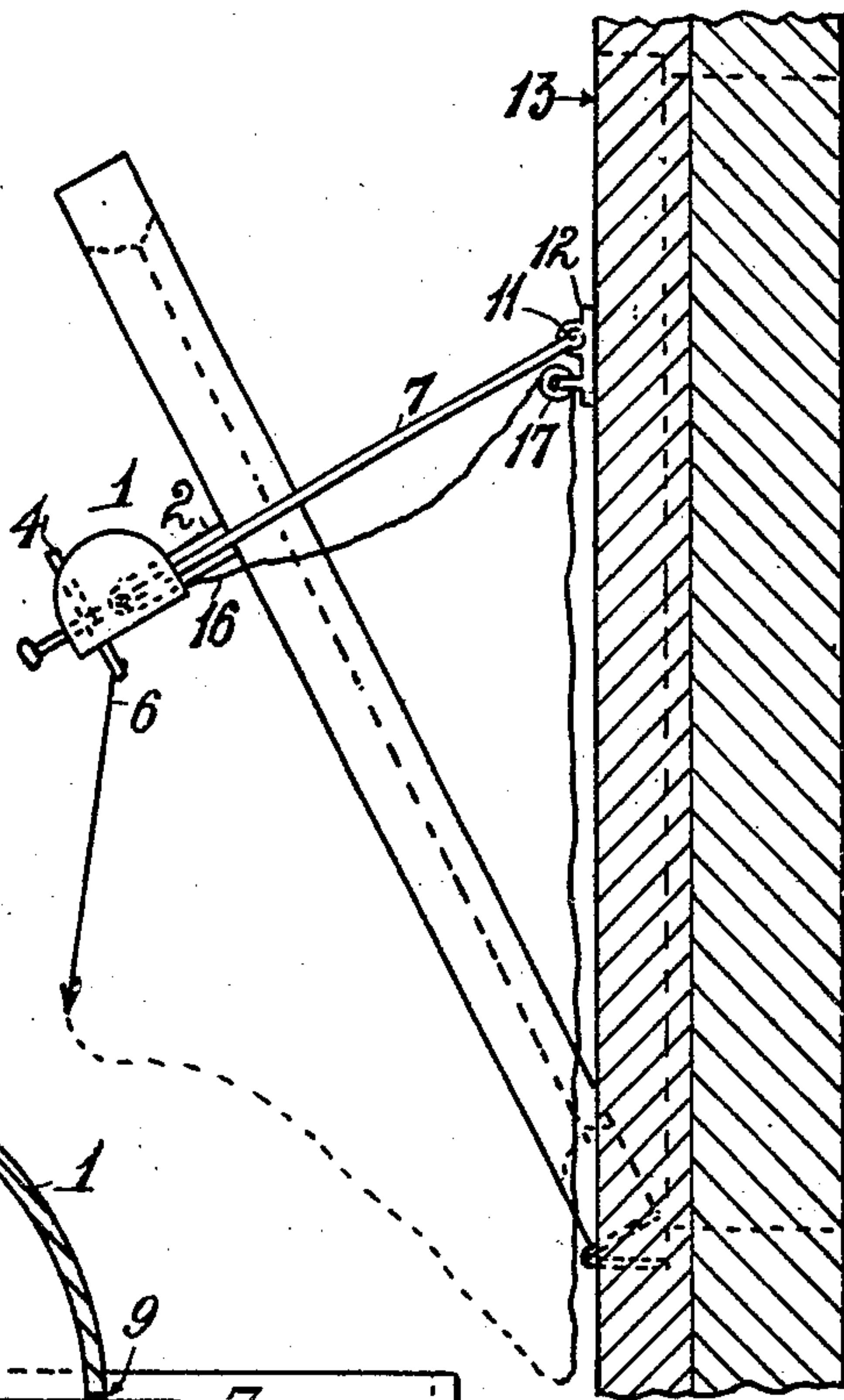


Fig. 2.

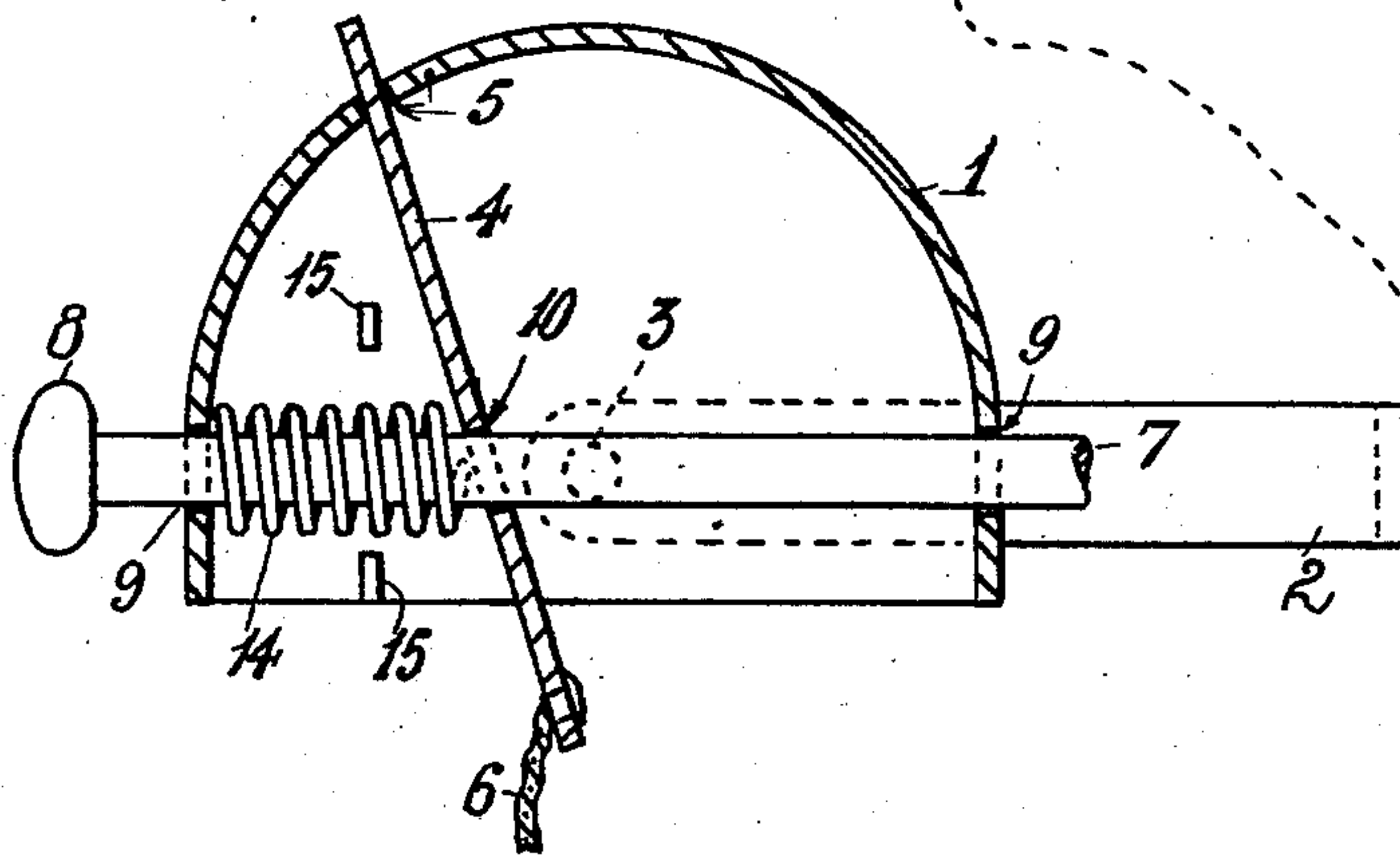
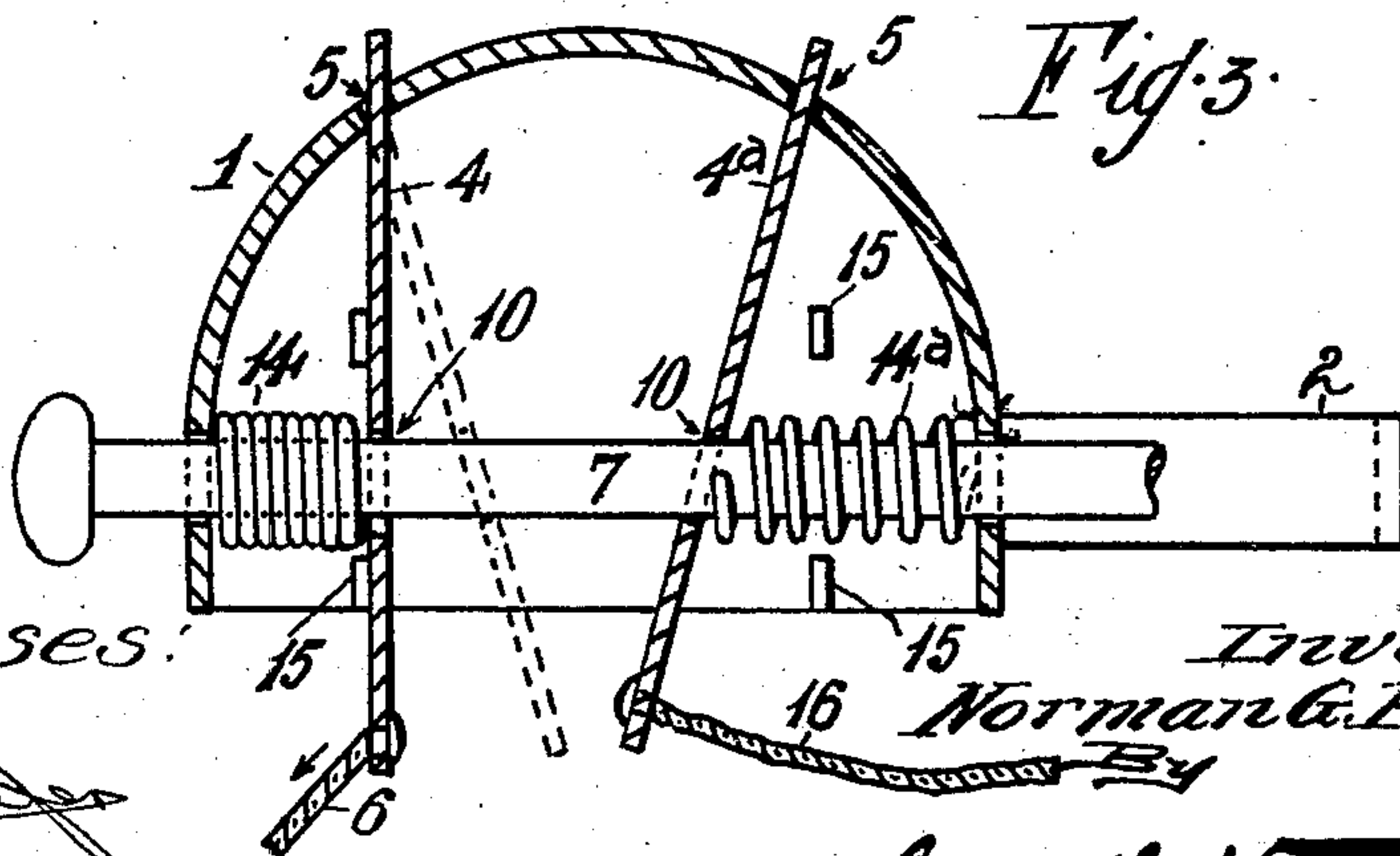


Fig. 3.



Witnesses:

J. B. Kessler
W. B. Kessler

Inventor
Norman G. Pilcher

James L. Norris

Atty.

UNITED STATES PATENT OFFICE.

NORMAN GEORGE PILCHER, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

CLUTCH FOR TRANSOM-RODS.

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To all whom it may concern:

Be it known that I, NORMAN GEORGE PILCHER, a subject of the King of Great Britain, residing at 79 Macleay street, Sydney, in the State of New South Wales, Commonwealth of Australia, barrister-at-law, have invented Improvements in Clutches for Transom-Rods, of which the following is a specification.

The present invention relates to improvements in clutches for transom rods, and it has for its prime object the production of an apparatus of the general type specified, constructed in such a manner as to admit of its being operated with extreme ease, both to lock and to release the transom.

The drawings illustrate the invention as applied to a transom and comprise;—Figure 1 a side elevation of a transom in the act of being opened with the improvements attached. Fig. 2 an enlarged longitudinal vertical section through the clutch box, and Fig. 3 a similar view of said clutch box illustrating a modification in the construction.

According to this invention in its simplest form a hollow clutch box 1 open on its underside is connected to a bracket 2 on the sash by a pivot 3, and within said box is positioned a clutch plate 4, which projects at its upper end through a slot 5 in said box the lower end of the plate extending below the bottom thereof and being connected with one end 6 of a cord. A rod 7 having a stop 8 at its outer end passes freely through holes 9, 9, in the ends of said box and freely but not loosely through a hole 10 in the clutch plate and its inner end is pivotally connected or hinged as at 11 to a bracket 12 secured on the casing 13 of the transom. The hinged rod 7 is in the same plane as the pivot 3 upon which the clutch box 1 is mounted. The rod has a spiral spring 14 coiled around it between the outer end of the box and the clutch plate, which normally causes said plate to be inclined so that the edge of its hole 10 bites or grips the rod and prevents the box sliding on the latter. Stops 15 are provided on the inner sides of the box to prevent the plate being pulled by the cord past a position approximately perpendicular to the rod. The other end 16 of the cord used for closing the transom is attached to the inner end of the box and passes over a sheave 17 on the bracket 12. It will be obvious that instead of a single cord two separate ones may be

employed attached respectively to the plate and box.

It is necessary in using this apparatus that it be fixed wholly above the hinge of the transom, and that the rod lies approximately at an angle of 30° in a vertical plane to the casing of the transom when the latter is shut, and it is applicable in the manner above described only to transoms whose axis of revolution in moving is horizontal. In its application however to transoms whose axis of revolution in moving is vertical, the apparatus should be so affixed that when the transom is shut the rod should lie at an angle of 30° measured from the wall in a horizontal plane.

In operation when it is desired to open the transom the end 6 of the cord is pulled causing the plate 4 against the pressure of its spring 14, to assume a position approximately perpendicular to the rod 7 as in Fig. 1, whereupon the grip of the plate is released and the clutch box 1 is free to slide outwardly and downwardly along the rod aided by the continued pull of the cord or the weight of the transom.

The transom is fixed in any position by releasing the tension of the cord when the spring 14 will cause the plate to become inclined again and immediately grip the rod, and the transom may be closed by pulling the other end 16 of the cord or by pushing it back by hand.

If preferred an additional plate 4^a, Fig. 3 may be employed in the box in which case both plates 4 and 4^a are normally pressed toward each other by the springs 14 and 14^a, and the end 16 of the cord is attached to the additional plate 4^a instead of to the box. With this construction when the plate 4 is pulled by the end 6 of the cord it releases the clutch box, which slides down the rod freely as the other plate 4^a offers no resistance to the box moving outwardly and when the cord is slackened both plates grip the rod. The reverse movement is achieved by pulling the end 16 of the cord which first releases the grip of the plate and then closes the transom.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is;—

1. In a clutch for transom rods, the combination of a casing connected with the

transom and engaged with the rod, said casing being arranged for movement with respect to the latter and to said transom; a clutch member carried by the casing and
5 yielding engaged with said rod; and means for releasing said member from such engagement.

2. In a clutch for transom rods, the combination of a rocking casing connected with
10 the transom and arranged for movement upon the rod; a shiftable clutch member carried by the casing and yielding engaged with said rod; and means for releasing said member from such engagement.

15 3. In a clutch for transom rods, the combination of a casing slidably mounted upon the rod and pivotally connected with the transom; a clutch member disposed within the casing and formed with a perforation
20 through which said rod extends; means for normally holding said member in position to engage said rod with one edge of its perforation; and means for releasing said member from such engagement.

4. In a clutch for transom rods, the combination of a rocking casing connected with
25 the transom and arranged for movement upon the rod; a shiftable clutch member carried by the casing and yielding engaged with said rod; means for shifting said member
30 to release the same from such engagement; and means for limiting such movement.

5. In a clutch for transom rods, the combination of a casing connected with the
35 transom and arranged for movement upon the rod; a plurality of clutch members carried by the casing and yielding engaged with the rod; and means connected with
40 said members for independently releasing the same from such engagement.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

NORMAN GEORGE PILCHER.

Witnesses:

CHARLES EDWARD GRAHAM,

HENRY WATCHORNE CLARKE.