

G. W. BOWERS.
WATCH MOVEMENT HOLDER.
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938,817.

Patented Nov. 2, 1909.

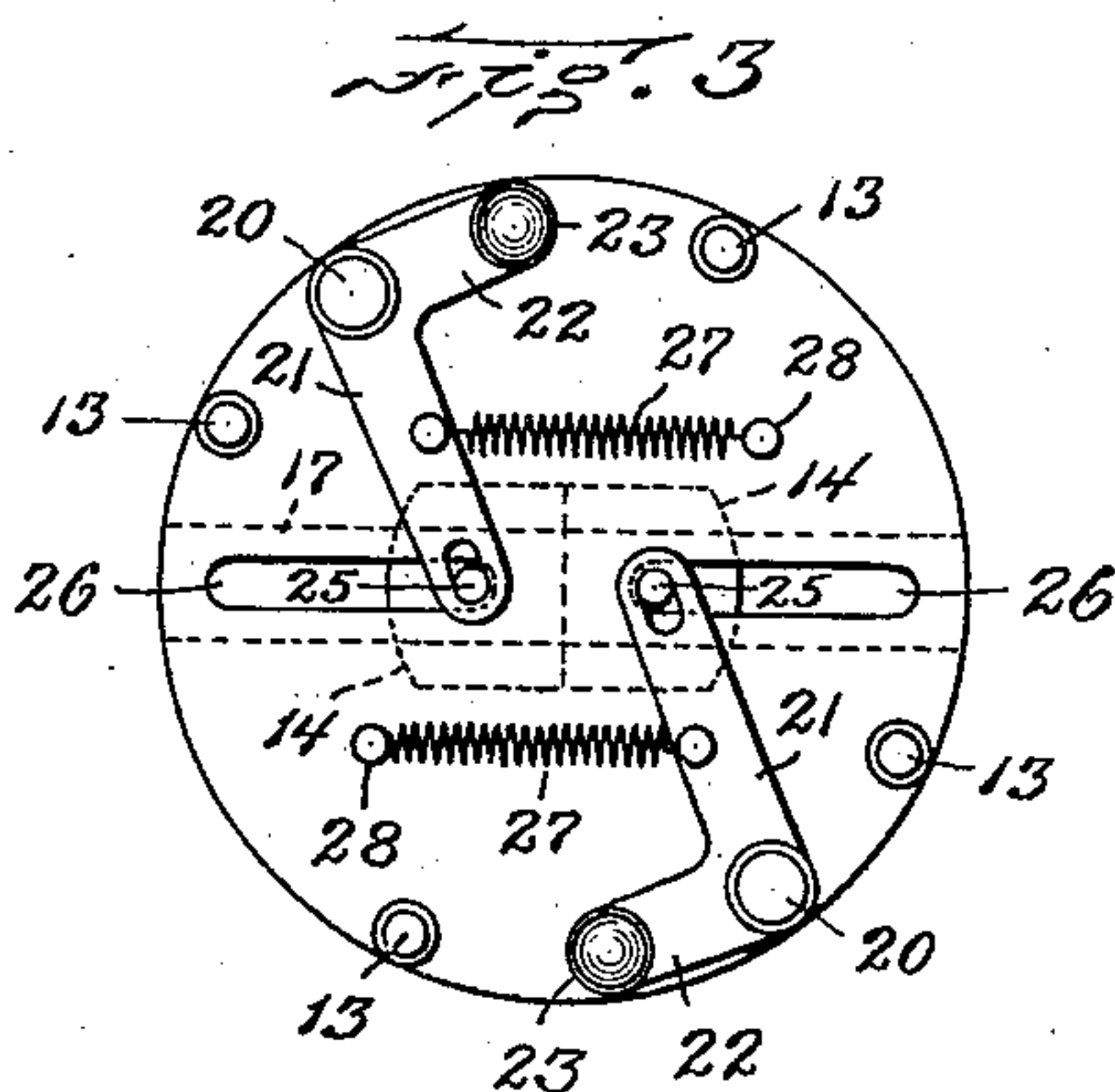
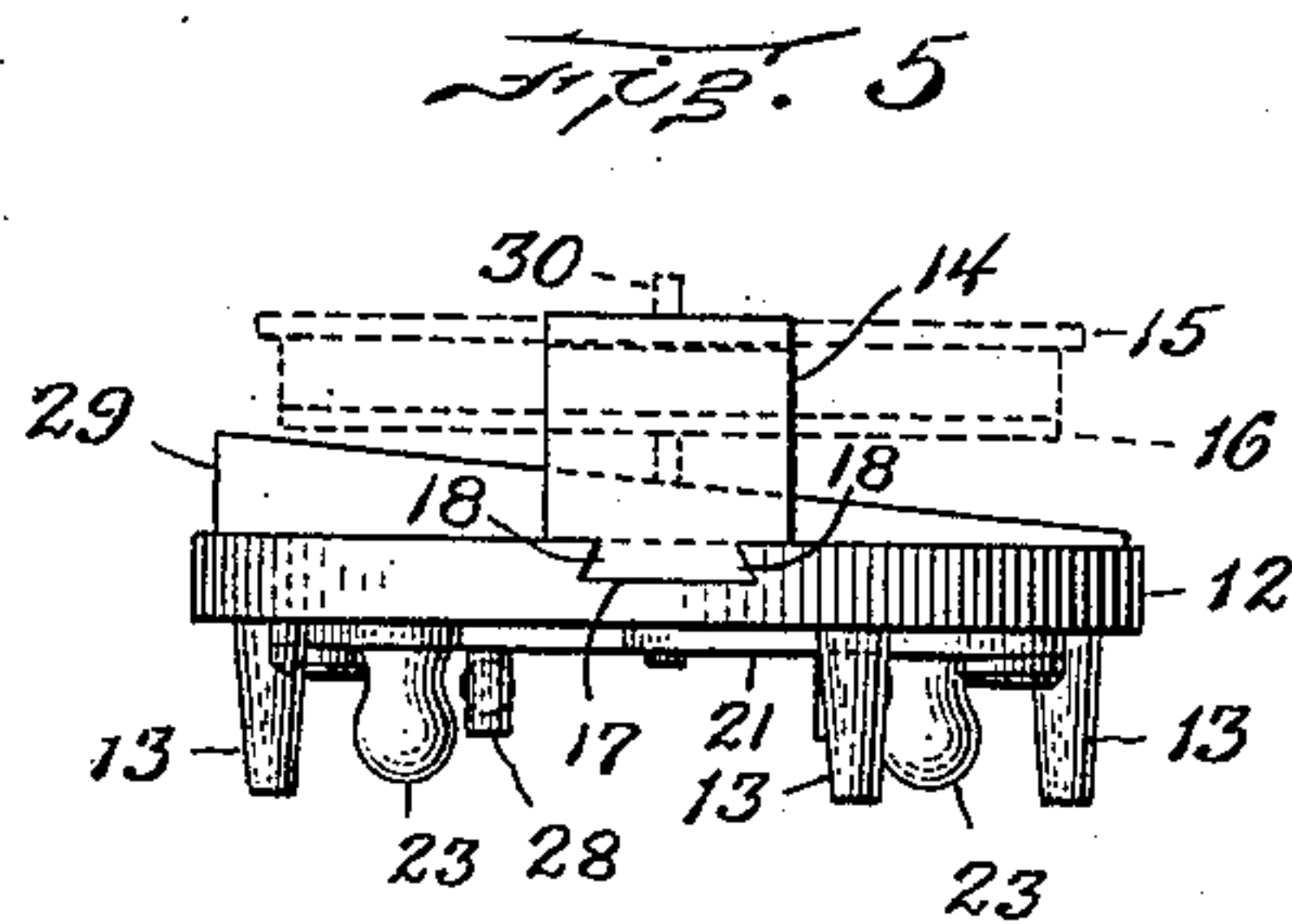
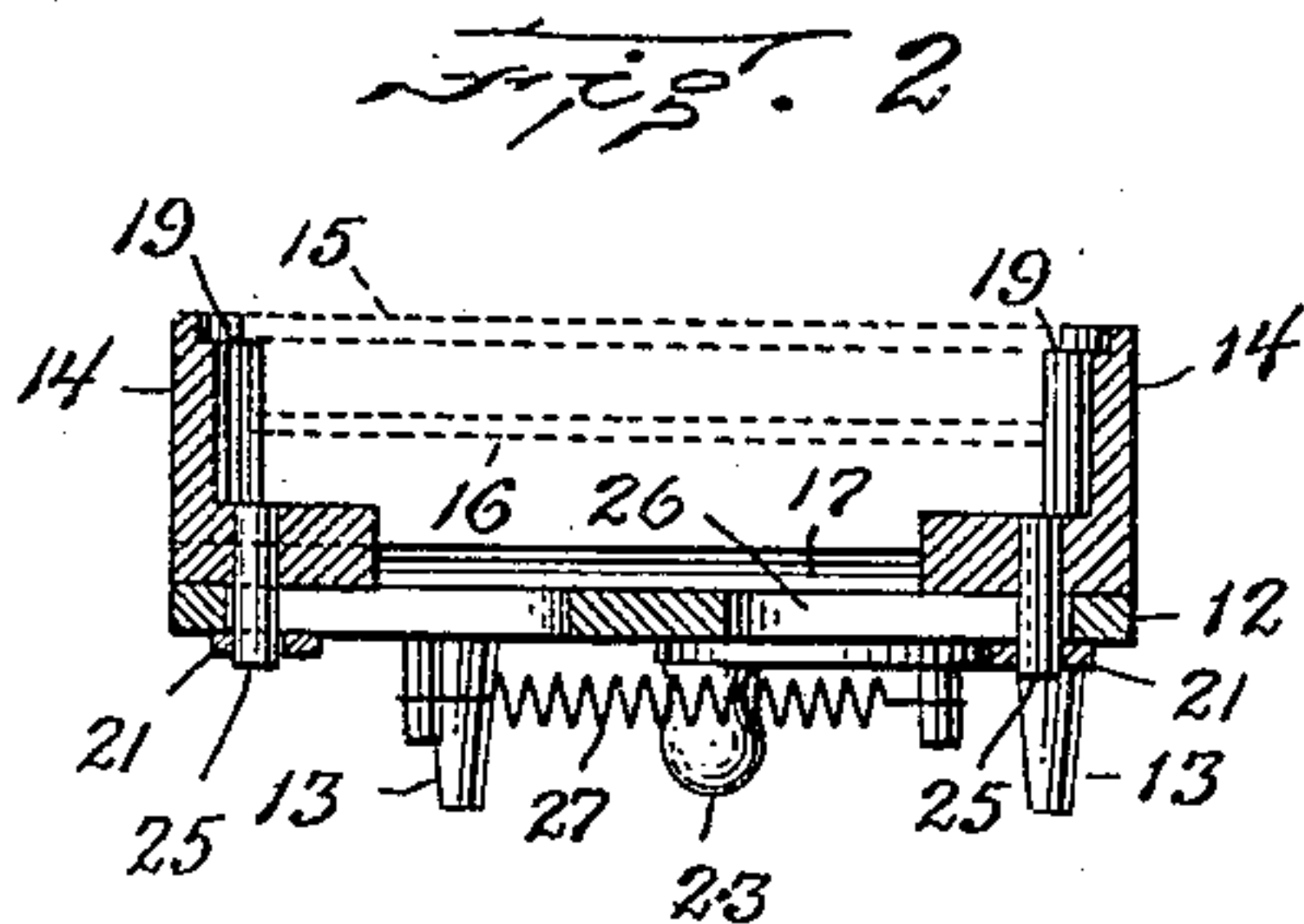
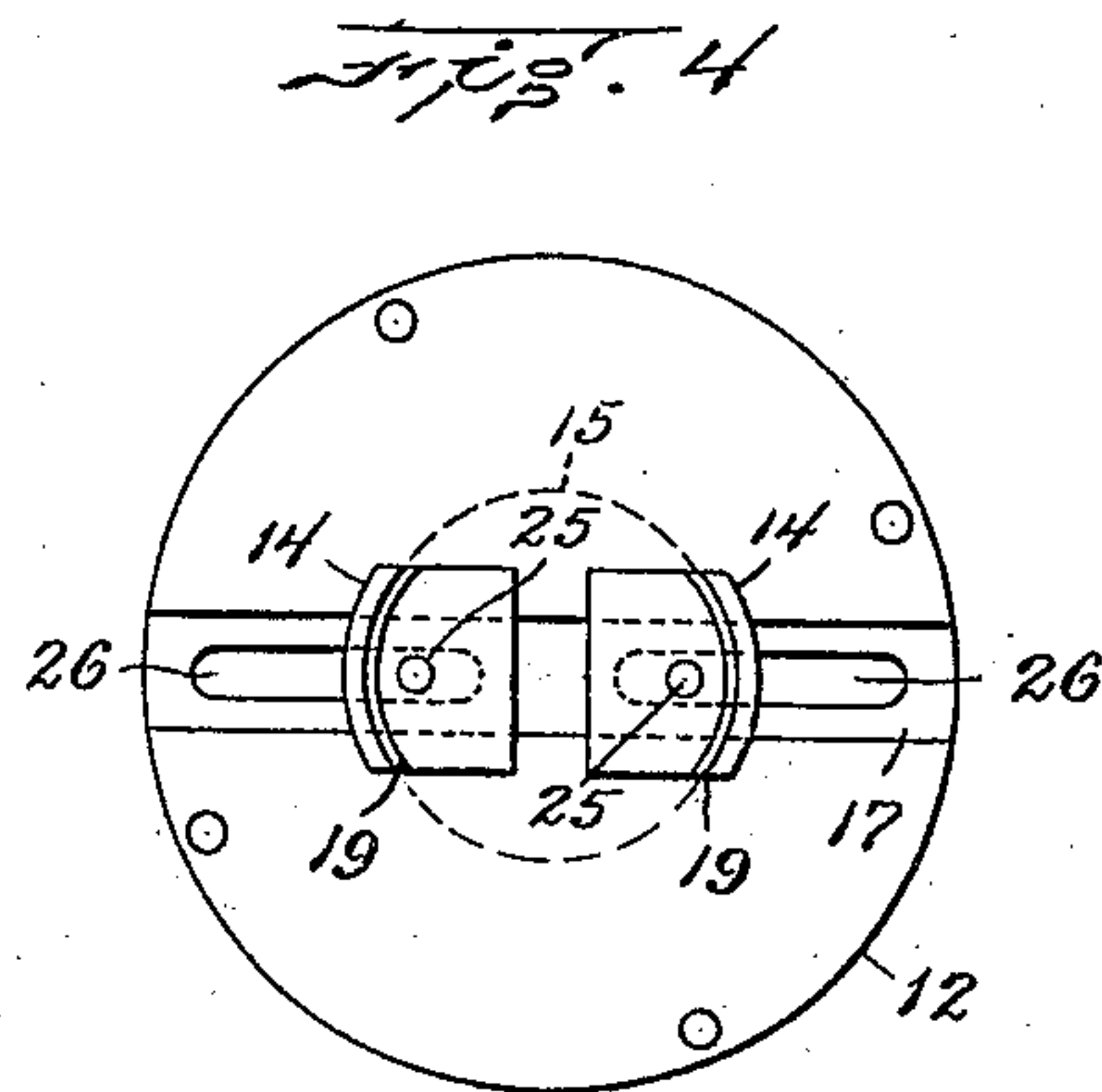
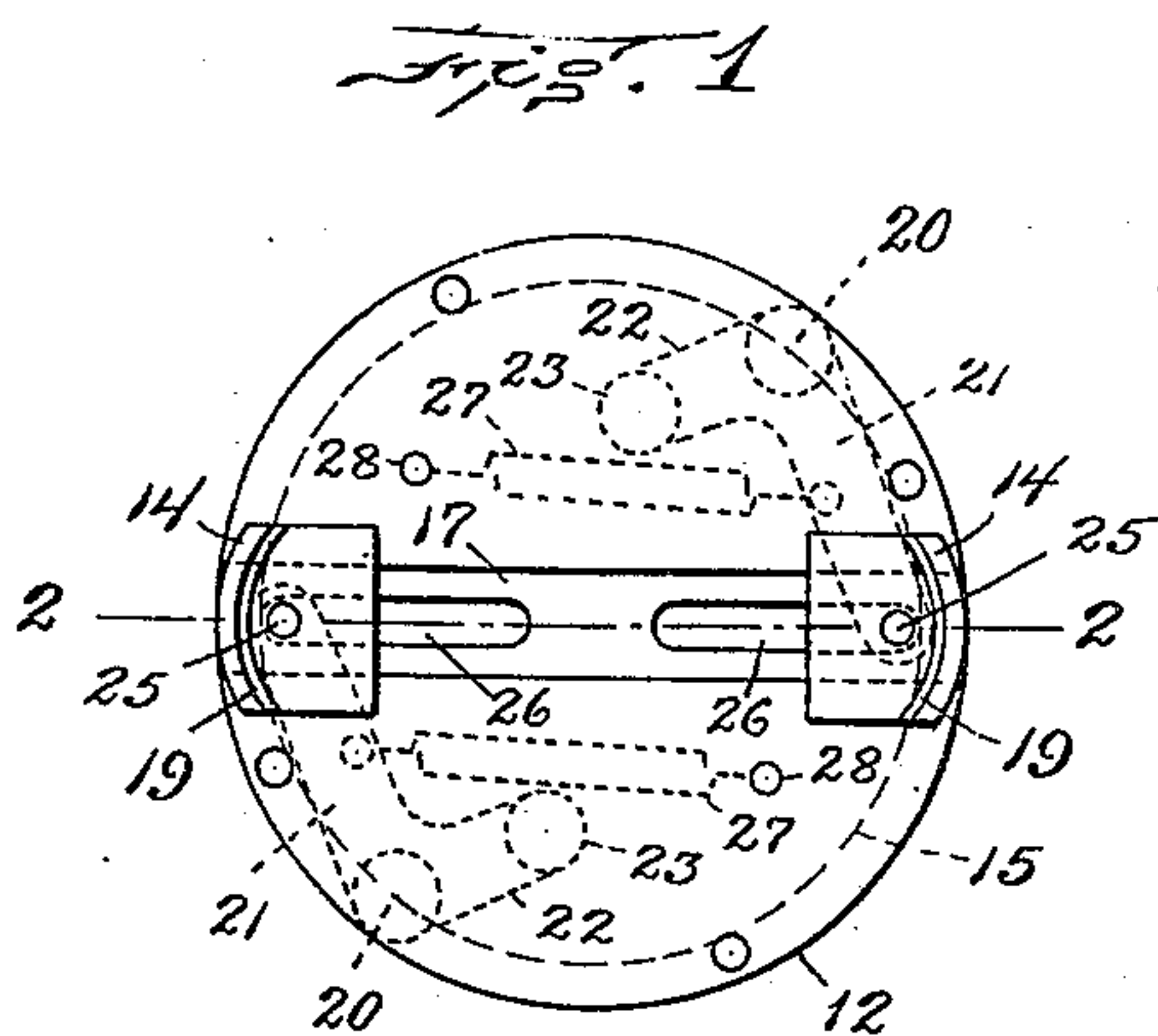
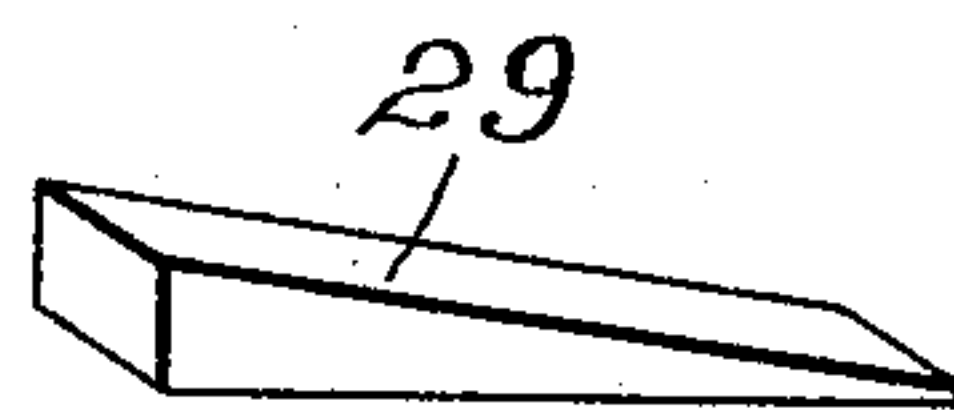


Fig. 6.



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UNITED STATES PATENT OFFICE.

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WATCH-MOVEMENT HOLDER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE W. BOWERS, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Watch-Movement Holders, of which the following is a specification.

This invention has for its object to provide a simple, efficient, and convenient holder adapted to engage and support a watch movement while the same is in process of treatment by a watchmaker or repairer, and it consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a top plan view of a watch movement holder embodying my invention, the holder being adjusted to a movement of relatively large size. Fig. 2 represents a section on line 2—2 of Fig. 1. Fig. 3 represents a bottom plan view. Fig. 4 represents a view similar to Fig. 1, showing the holder adjusted to a smaller movement. Fig. 5 represents an edge view. Fig. 6 represents a perspective view of the wedge-shaped support, hereinafter described.

The same reference characters indicate the same parts in all the figures.

In the drawings,—12 represents a base plate preferably of circular form, and provided on its under side with legs 13 whereby the base is supported in a raised position above a bench or table on which the legs rest, space being thus afforded below the base for the jaw operating mechanism, hereinafter described.

14, 14 represent jaws adapted to engage a suitable part, such as the pillar plate 15 of a watch movement, the jaws being located above the base and projecting upwardly to such height that the movement is supported entirely above the base, a space being left between the top plate 16 of the movement, namely, the plate opposite the pillar plate, and the base, for a purpose hereinafter described.

The jaws 14 are movable radially in opposite directions toward and from the center of the base, said jaws and the base being provided with complementary guide members whereby the jaws are guided in a predetermined path. Preferably, the guide members are provided by the inclined sides of a dovetail slot 17 formed in the upper side of the

base and extending across the same, and faces 18 of a dovetail portion formed on the jaws and having a sliding fit in said slot. The inner sides of the jaws are provided with seats or shoulders 19 formed to support the pillar plate 15, the said inner sides being of concave form so that they conform approximately to the curvature of the periphery of the plate 15, and so engage the same as to prevent edgewise displacement of the pillar plate in a direction transverse to the direction of pressure of the jaws against the plate. This concave form enables a single pair of jaws to hold the plate against edgewise displacement in any direction.

The elevation of the base by the legs 13 above the bench or support on which it rests, provides space below the base for mechanism for projecting the jaws inwardly into engagement with the movement plate 15, and for manually retracting the jaws or moving them outwardly to release the plate. The preferred mechanism for accomplishing these results is as follows:—

Pivoted to the base at 20, 20 and located below the same are two bell crank levers, each having an inner arm 21, and an outer arm 22, the outer arms being located in such proximity to the margin of the base that they are adapted to receive pressure from the operator's hand to force them inwardly for the purpose of retracting the jaws, said outer arms being preferably provided with knobs or handles 23 to receive inward pressure from the thumb and a finger of the operator's hand. The inner arms 21 are slotted to receive studs 25 affixed to the bases of the jaws, said studs projecting through radial slots 26 in the base 12.

Springs 27 are connected at 28 to the base and are engaged with the inner arms 21 of the levers, said springs normally drawing the said inner arms inwardly toward the center of the base, and thus acting through said arms and the studs 25 to automatically project the jaws into engagement with a movement plate 15 interposed between them. The jaws have a sufficient range of movement to enable them to engage plates 15 of different diameters, as indicated in Figs. 1 and 4. It will be seen that the springs normally force the outer arms 22 toward the margin of the base where they may be conveniently pressed upon by the thumb and finger of the operator to move the levers

against the force of the springs, and thus retract the jaws and release the movement held thereby, the manual operation of the device being therefore effected by one hand of the operator. The entire mechanism for projecting and retracting the jaws is independent of the base 12, so that the operator does not have to grasp and hold the base while retracting the jaws, one hand being free to apply and remove the movement.

The space above the base between the jaws and base is practically unobstructed, so that it may be utilized to receive a support 29 adapted to bear on the end of the center-pivot 30 of the watch movement which projects below the top plate 16. Said support is wedge-shaped, as shown in Figs. 5 and 6, and is formed as a separate piece adapted to bear loosely on the upper surface of the base, the said support being used during the operating of driving the hands of the watch movement on to the end of the center-pivot that projects from the pillar plate. When the watch movement is of relatively large diameter so that the jaws are separated sufficiently to permit the interposition of the support 29 between them, said support bears on the upper side of the base. When the jaws are adjusted inwardly to engage a relatively small movement, as shown in Fig. 4, the support 29 may bear upon the upper surfaces of the bases of the jaws, the wedge form of the support enabling it to conform to any thickness of watch movement.

I claim:

1. A watch movement holder comprising a base, a pair of opposed jaws guided by the base and movable radially in opposite directions thereon, the jaws being formed to engage a watch movement plate, bell crank levers pivoted to the base and located below

the same, connections between said levers and the jaws, and springs acting through the said levers and connections to automatically project the jaws into engagement with a movement plate, the levers being manually operable to retract the jaws.

2. A watch movement holder comprising a base having radially extending slots, a pair of opposed movement plate-engaging jaws guided by the base and provided with studs projecting downwardly through said slots, bell crank levers pivoted to base and located below the same, the outer arms of said levers being adjacent to the margin of the base to permit the manual operation of the levers, while their inner arms are engaged with the said studs, and springs connected with the levers and the base and adapted to automatically project the jaws into engagement with a movement plate, the jaws being retractable by the manual operation of the levers.

3. A watch movement holder comprising a base, a pair of opposed movement plate-engaging jaws guided by the base and movable radially in opposite directions thereon, the jaws being located above the base, means below the base for projecting and retracting the jaws, the space between the jaws at the upper side of the base being unobstructed, and a center-pivot support adapted to occupy said space, said support being wedge shaped and movable on the base to adjust its upper side to the lower end of the center pivot of a watch movement held by the jaws.

In testimony whereof I have affixed my signature, in presence of two witnesses.

GEORGE W. BOWERS.

Witnesses:

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