

C. WALLER.

WRENCH.

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911,096.

Patented Feb. 2, 1909.

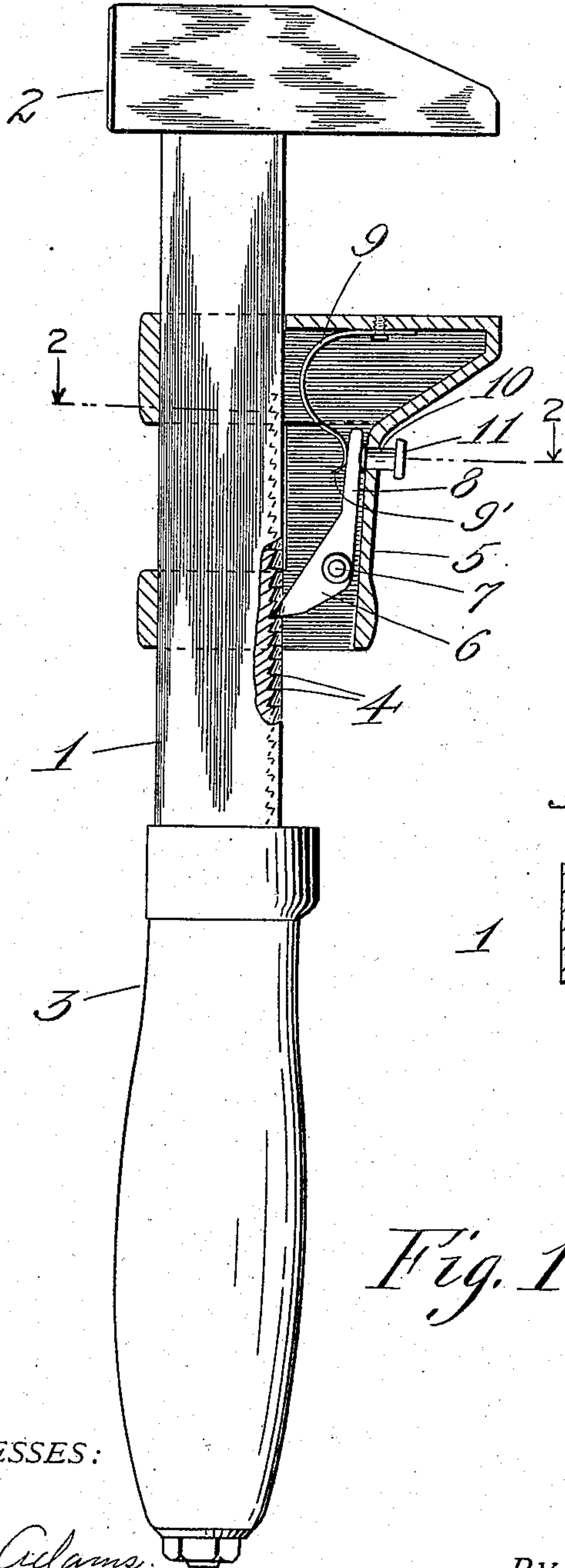


Fig. 1

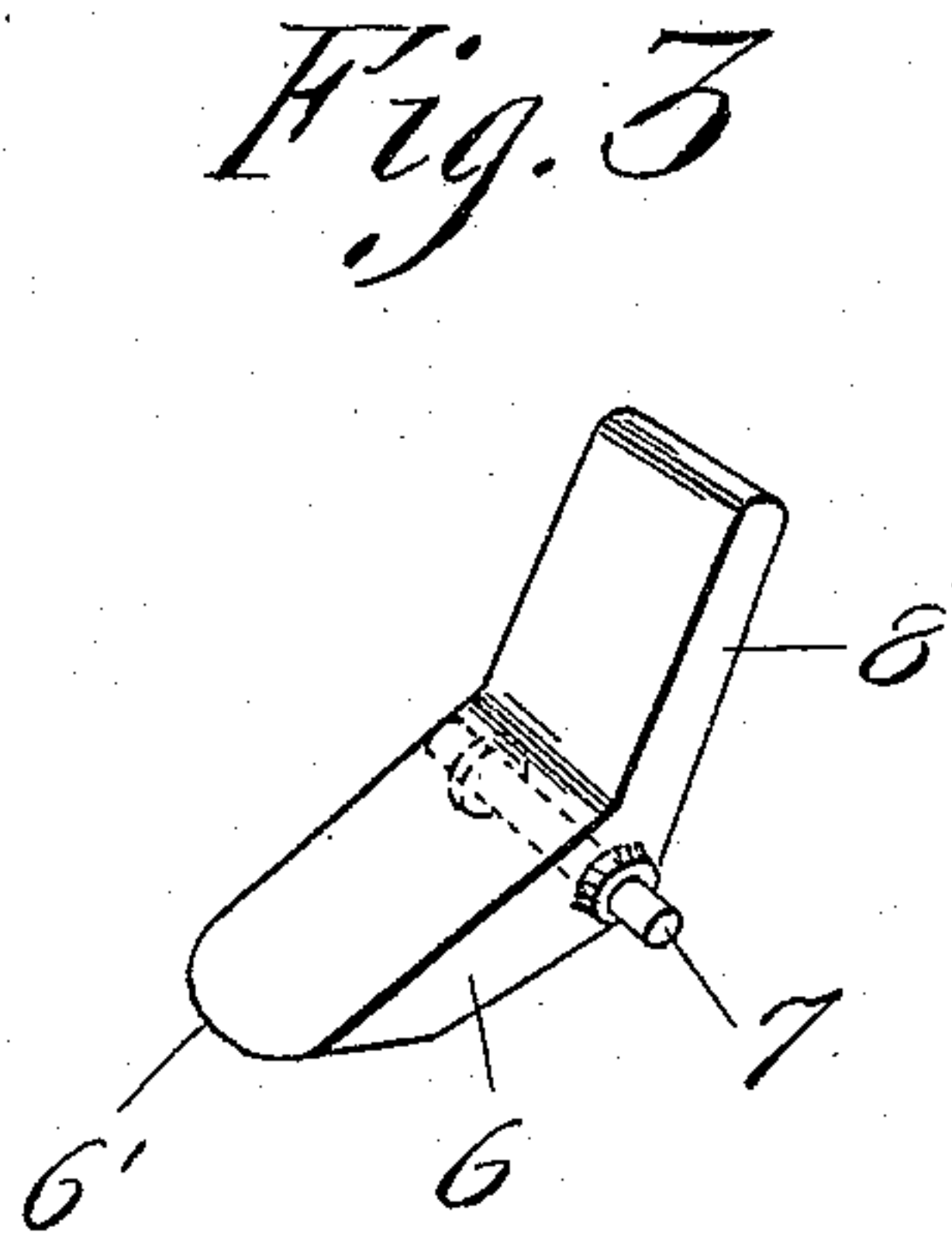


Fig. 3

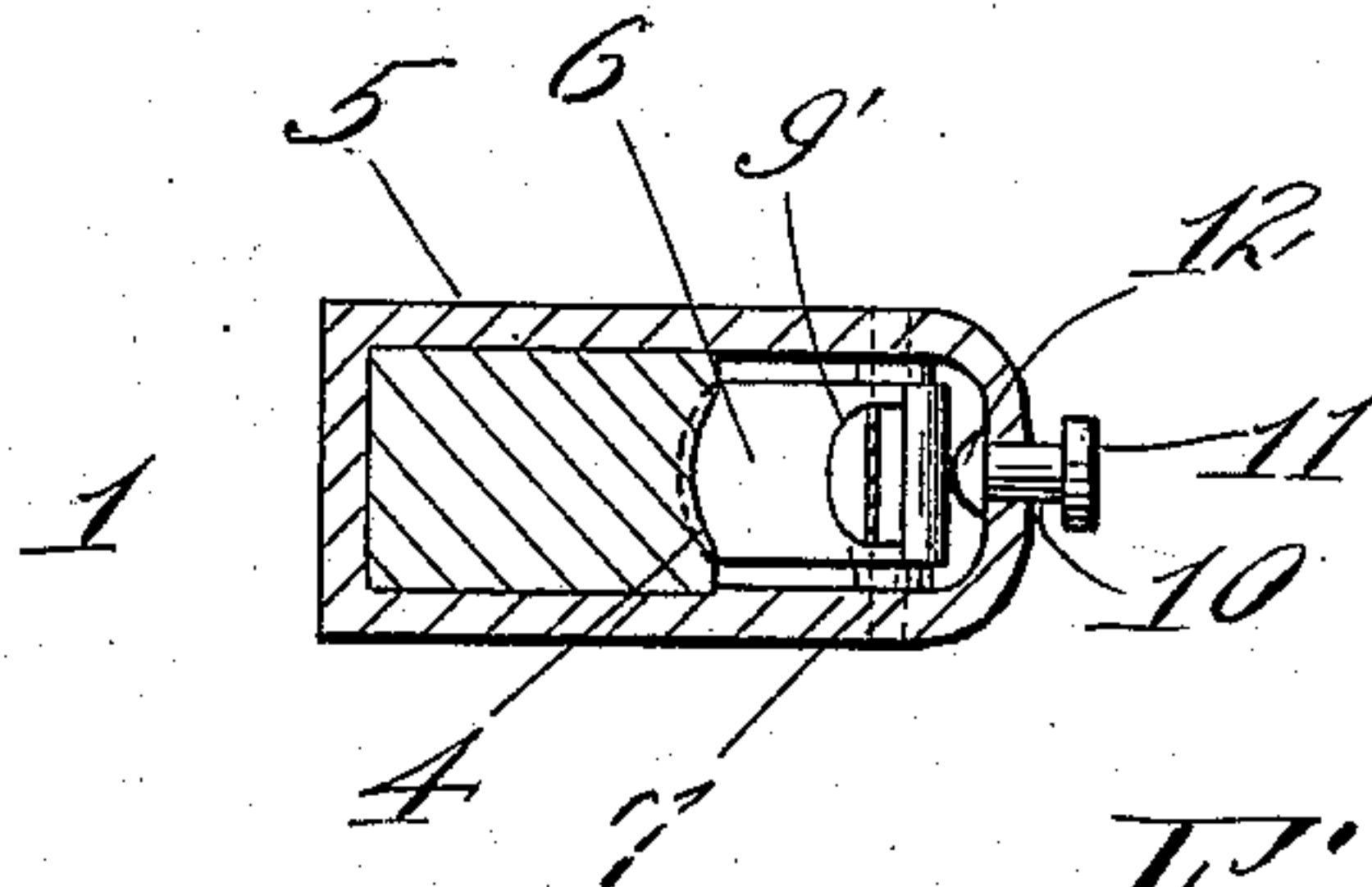


Fig. 2

WITNESSES:

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WRENCH.

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Specification of Letters Patent.

Patented Feb. 2, 1909.

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To all whom it may concern:

Be it known that I, CHARLES WALLER, a citizen of the United States of America, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

My invention relates to improvements in wrenches and has for its primary object the provision of a comparatively simple construction through the medium of which the movable jaw can be rapidly adjusted.

A further object resides in the provision of a comparatively inexpensive construction, embracing but few parts which can be readily removed when worn or broken.

With these objects in view the invention resides in the construction and arrangement of parts hereinafter described, and particularly pointed out in the appended claims.

In the accompanying drawing, in which like numerals of reference indicate like parts throughout the several views: Figure 1 is a side elevation of a wrench constructed in accordance with my invention, parts being broken away. Fig. 2 is a section taken on line 2—2 of Fig. 1, and Fig. 3 is a detail view in perspective of the dog.

Reference numeral 1 indicates the shank, provided with a fixed jaw 2 and handle 3, and formed in its forward face at points spaced well from its side edges with a channel or groove which is provided with ratchet teeth, as 4, said channel or groove being curved in cross section, (see Fig. 2).

Reference numeral 5 indicates the movable jaw, the same being slidably arranged on shank 1 for adjustment toward and from fixed jaw 2. Within jaw 5 I arrange the dog 6, said dog having a curved engaging portion 6' adapted to fit snugly in the channel or groove of shank 1 and engage the ratchet teeth 4. Dog 6 is pivoted on a removable pin 7 and has an upwardly projecting extension 8 engaged by a spring 9 which exerts pressure tending to hold the dog in engagement with the ratchet teeth.

A push pin 10 is slidably mounted in the wall of jaw 5 for releasing dog 6, said pin having a thumb part 11 and a head 12 the latter bearing on the extension 8 of the dog, as clearly illustrated. Head 12 is slightly convexed and at a point substantially opposite the same, spring 9 is curved outwardly as at 9' to provide a guiding extension.

If dog 6 needs replacing, it can be readily removed by first removing pin 7, then removing the dog through the open lower end of jaw 5. To insert a new dog, the same is moved upwardly through the open lower end of jaw 5, extension 8 being engaged with and sliding on the inner face of the adjacent wall of the jaw until it encounters head 12. Head 12 being convexed provides a cam surface over which the extension 8 of the dog will readily slide during the movement of the dog as just described. After having been brought to the position shown in Fig. 1, wherein spring 9 bears on one face of extension 8 and head 12 on the other, pin 7 is engaged with the dog.

While I have herein disclosed a construction which will carry out the various functions assigned to it, I reserve the right to make such changes in the minor details of construction as falls in the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States of America, is:

A wrench comprising a shank provided with a fixed jaw and formed in one side with ratchet teeth, a jaw slidably mounted on said shank, said jaw being hollow and having its lower portion open to provide a passageway, a pin removably secured in said slidable jaw, a dog arranged on said pin for swinging into and out of engagement with the ratchet teeth of said shank, said dog having an upwardly projecting extension, a push pin slidably mounted in said last named jaw and provided at its inner end with a head bearing on the outer face of the extension of said dog, and a spring bearing on the inner face of the extension of said dog, the lower portion of said spring lying opposite the head of said push pin and having a guiding extension curved from the inner side thereof, said head being convexed to provide a cam surface for guiding the extension of said dog from the adjacent wall of the slidable jaw during the insertion of said dog, into position therein.

Signed at Seattle, Washington this 2nd day of October 1907.

CHARLES WALLER.

Witnesses:

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SARAH B. FOLEY.