

(No Model.)

R. F. OLDEN.
NUT WRENCH.

No. 574,622.

Patented Jan. 5, 1897.

Fig. 1.

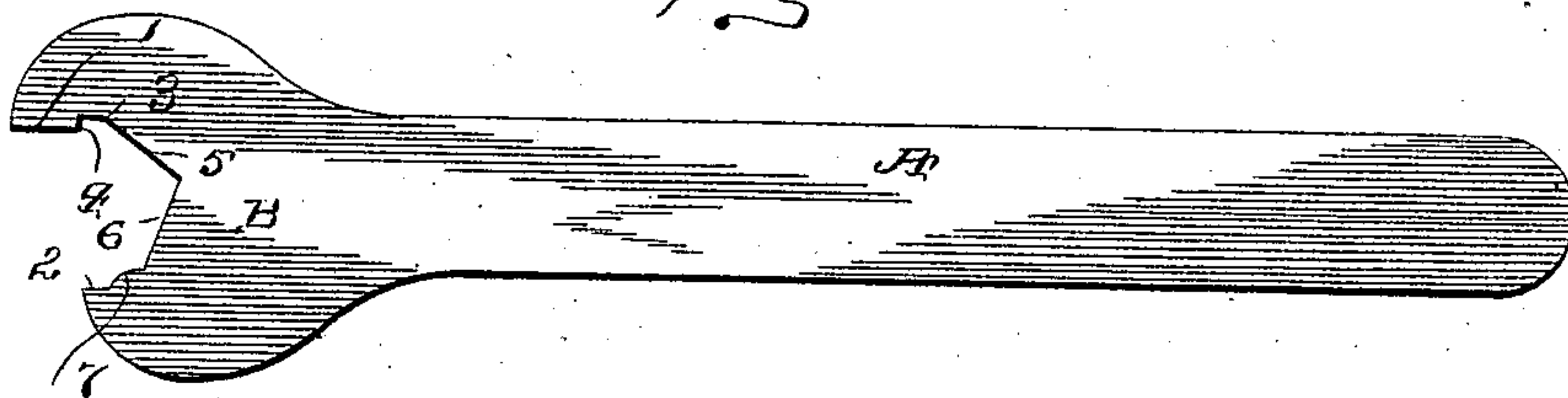


Fig. 2.

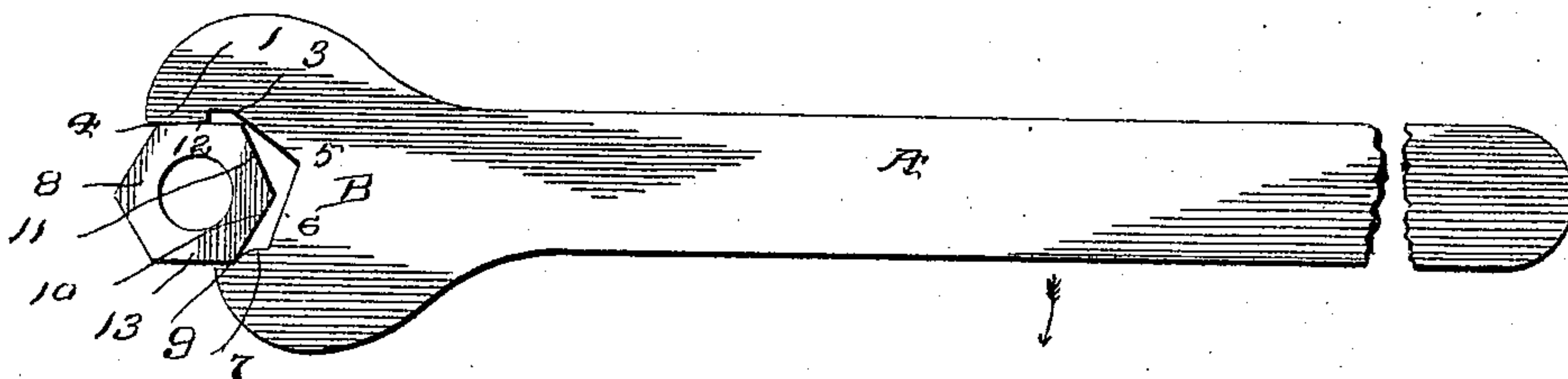
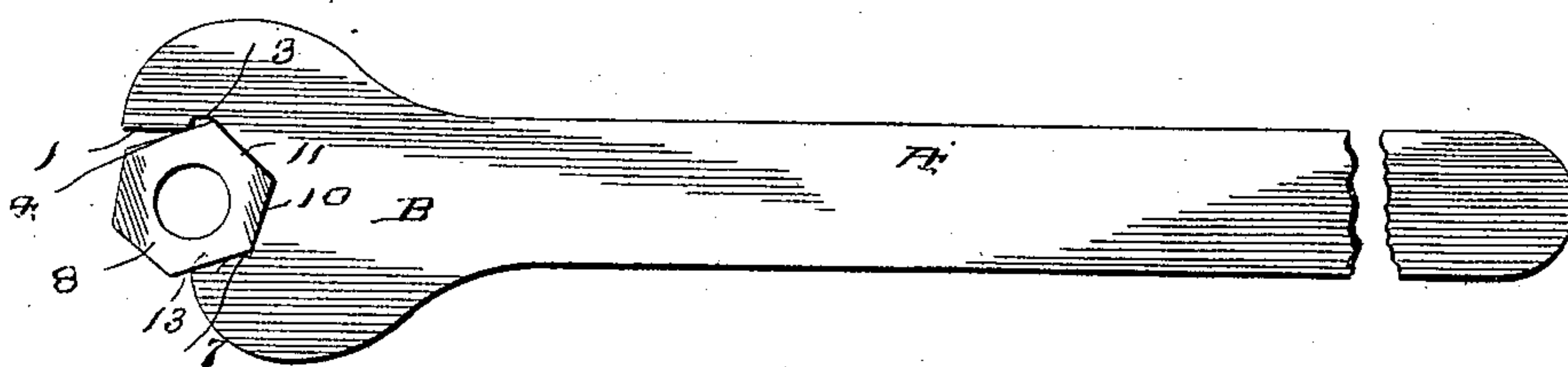


Fig. 3.



Witnesses
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ROBERT F. OLDEN, OF LORDSBURG, TERRITORY OF NEW MEXICO.

NUT-WRENCH.

SPECIFICATION forming part of Letters Patent No. 574,622, dated January 5, 1897.

Application filed July 7, 1896. Serial No. 598,281. (No model.)

To all whom it may concern:

Be it known that I, ROBERT F. OLDEN, a citizen of the United States, residing at Lordsburg, in the county of Grant and Territory of New Mexico, have invented certain new and useful Improvements in Nut-Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to nut-wrenches, and more particularly to those wrenches adapted for manipulating hexagonal nuts, such as are commonly employed in connection with rail-joints of the angular type. On those rail-roads where angular rail-joints are employed it is inexpedient to use square nuts for the bolts, as the corners of the nut are liable to bind on the lower portion of the angle-joint or fish-plate. Hence it has been necessary in such cases to employ the ordinary form of hexagonal nut. The ordinary form of wrench is not well adapted for use in connection with nuts of this type, as it is liable to slip and not properly "bite" the nut.

My object is to provide an improved and simple, as well as cheap, nut-wrench which will be peculiarly adapted for manipulating hexagonal nuts and, owing to its peculiar construction, one which can be quickly and easily applied to the nut and when so applied will have a powerful bite or purchase thereon, so that all slipping will be prevented.

Having this object in view, my invention consists of a nut-wrench having a head which is cut away in a peculiar manner, so as to be more perfectly adapted for the reception of the nut and the manipulation thereof.

In the accompanying drawings, Figure 1 is a side elevation of my improved wrench; Fig. 2, a view showing the first step in applying the wrench to a hexagonal nut, and Fig. 3 a view showing the final position of the nut as ready for turning.

A designates the handle of the wrench, and B the head thereof, both of which are constructed in a single piece and of any preferred material. The head is suitably cut away to provide a squared upper or main jaw 1, and the lower portion of the head is also cut away to constitute an auxiliary squared jaw 2. The head is in the rear of jaw 1, so that a squared

shoulder 4 is provided. Said head is also cut away to form two inclined faces 5 and 6, which form in connection with each other an angle similar to that formed by two faces of a hexagon. The face 6 is joined at its lower end to jaw 2 by a curved cam 7.

An inspection of Figs. 2 and 3 will show the relative position of a nut and the wrench during the application of the latter. In these figures an ordinary hexagonal nut is designated by the numeral 8. As shown in Fig. 2, the wrench is so manipulated that two opposite faces of the nut will be received between the main and auxiliary jaws. When the wrench is turned as indicated by the arrow in Fig. 2, it remains in the position shown in Fig. 3. While this movement is being carried on, the apex 9 of the nut rides on cam 7 until the faces 10 and 11 of said nut are against faces 5 and 6 of the wrench. When in this position, the apex of shoulder 4 binds firmly on face 12 of the nut, while the tip of the auxiliary jaw binds against face 13. The nut is thus firmly wedged in the wrench, so that a powerful bite on it is obtained, but this bite can be quickly released by turning the wrench back again to initial position, when it may be removed from the nut.

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

1. A nut-wrench provided with two inclined faces adapted to receive two sides of a nut, a main jaw adapted to bind on one side of the nut, an auxiliary jaw adapted to bind on another side of the nut, and a cam for guiding the nut against the inclined faces.

2. A nut-wrench provided with two inclined faces located at the same angle as that defined by two sides of a hexagon, a main jaw which is cut away to form a shoulder adapted to bind on the nut, an auxiliary jaw adapted to bind on the opposite side of the nut from the main jaw, and a curved cam leading from the auxiliary jaw to one of the inclined faces.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ROBERT F. OLDEN.

Witnesses:

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ANNA MARSHALL.