S. M. BARABE.

WRENCH.

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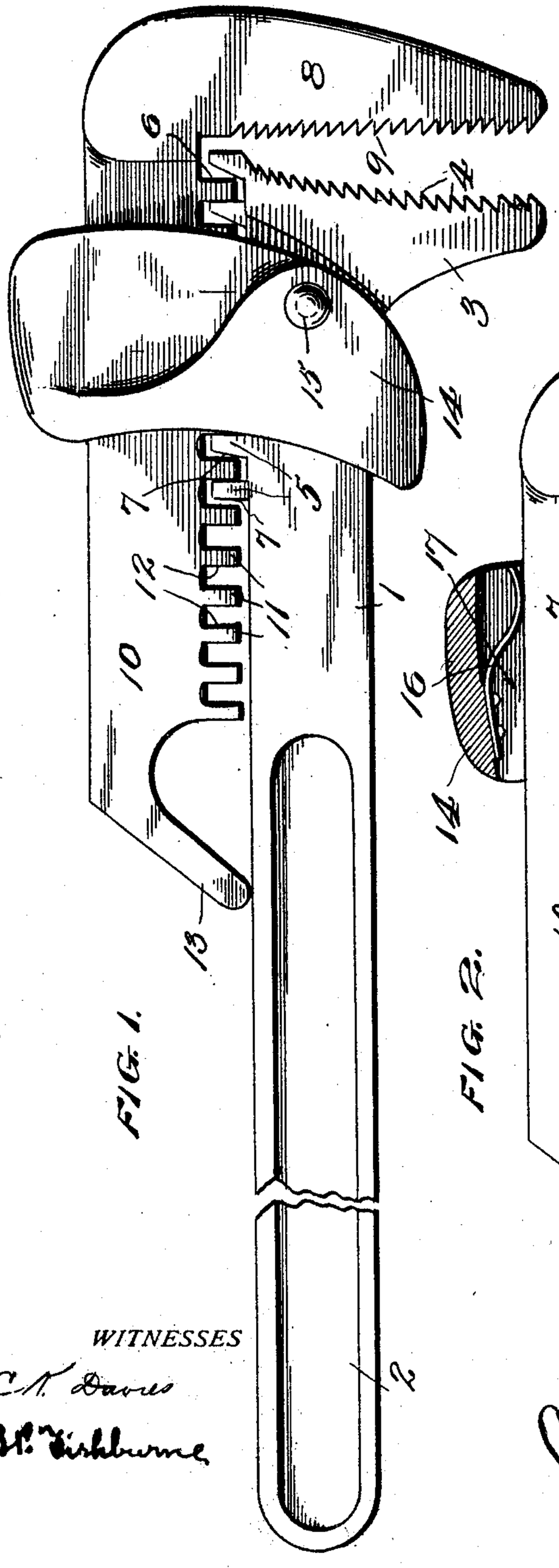

FIG. 1.

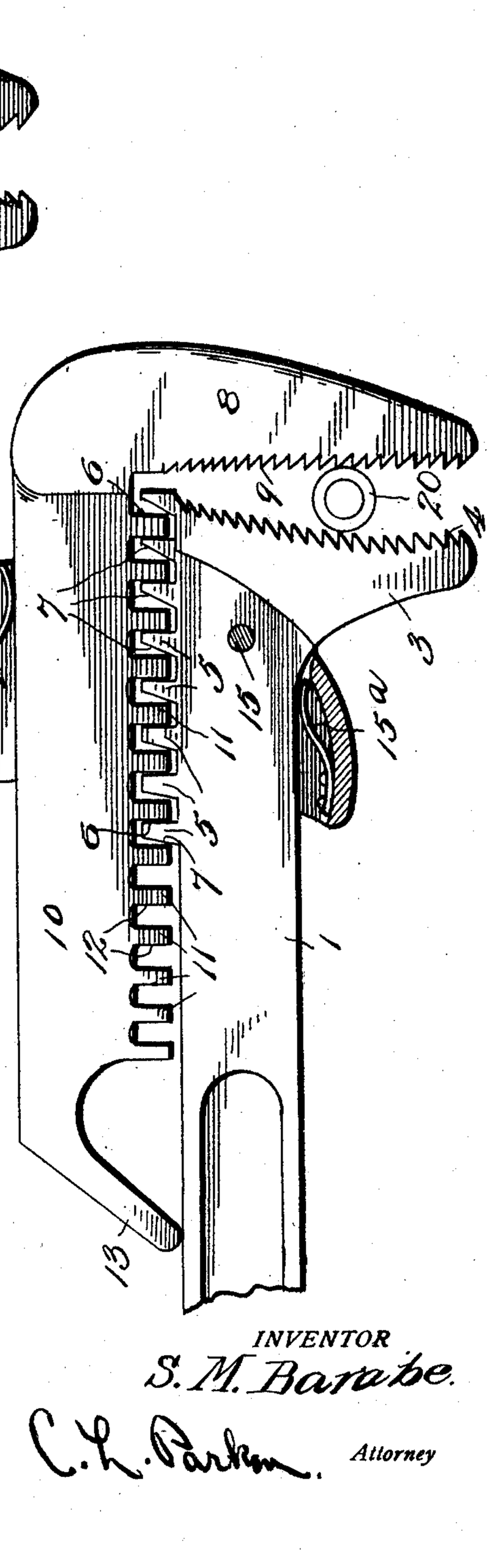

FIG. 2.

WITNESSES

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WRENCH.

998,271. Specification of Letters Patent. **Patented July 18, 1911.**

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To all whom it may concern:

Be it known that I, SIDNEY M. BARABE, a citizen of Canada, residing at Cochern, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

My invention relates to wrenches and more particularly to a wrench having novel means for adjusting the movable jaw.

An important object of my invention is to provide a wrench, embodying simple means whereby the movable jaw may be readily and quickly adjusted to grip a piece of work.

A further object of my invention is to provide a wrench comprising a movable jaw which may be angularly adjusted with relation to the fixed jaw.

My invention consists generally in the arrangement and combination of parts to be hereinafter described.

In the accompanying drawings, forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same, Figure 1 is a detail side elevation of the wrench. Fig. 2 is a similar view to Fig. 1, parts of the device being shown in section and broken away.

In the drawings illustrating a preferred embodiment of my invention, the numeral 1 designates the shank of a wrench, which is extended to form a handle portion 2. The upper end of the shank 1 is provided with a fixed jaw 3, which is preferably formed thicker than the shank 1 and is provided with teeth 4. The shank 1 is provided upon the inner edge thereof, with a plurality of spaced teeth 5, which have upper straight faces 6 which are disposed at right angles to the shank. These teeth are further provided with lower inclined faces 7 as shown. By reference to Fig. 2 it will be seen that the inclination of these faces 7 decreases toward the handle portion 2, until the face 7 of the lowermost tooth 5 is approximately at right angles to the shank 1.

Adapted to coöperate with the jaw 3 is a movable jaw 8 provided with teeth 9, which jaw 8 is arranged at right angles to and rigidly connected with a movable shank 10. The jaw 8 and the shank 10 are preferably formed integrally, said jaw 8 being thicker than the shank 10. The movable shank 10 is provided upon its inner edge with spaced teeth 11, the faces 12 of which are arranged at right angles to the same. These teeth 11 are suitably spaced to receive therebetween the teeth 5 carried by shank 1, as clearly illustrated in Fig. 2. The lower free end of the shaft 10 is provided with a downward and inward extension 13, which extends beyond the teeth 11. It is thus obvious that the teeth 11 nearer the extension 13 are retained in a spaced relation to the shank 1, while the teeth 11 adjacent the jaw 8 are capable of moving toward the shank 1. This movement causes the shank 10 to swing upon the extension 13 as a positive pivot toward the shank 1, which results in the jaw 8 being angularly arranged or swung downwardly toward the fixed jaw 3. It is obvious that if a piece of work is being held by the jaws 3 and 8, this swinging movement of said jaw 8 will grip the work and prevent its displacement.

A sleeve or keeper 14 is pivotally mounted by means of a pin 15 or the like to the shank 1, and the shank 10 is longitudinally movably mounted within this sleeve 14. The sleeve 14 is provided upon one side thereof with a spring 15ª which engages the shank 1 for holding said sleeve in its proper position. This sleeve 14 is provided upon its opposite side with a spring 16 which is disposed to engage the movable shank 10, to prevent the teeth 11 and 5 from normally disengaging each other. It is to be understood that the space 17 formed within the sleeve 14 is of sufficient size to permit the disengagement of the teeth 11 and 5, when the shank 1 is moved away from the shank 10, which may be accomplished by the operator pressing down upon the head of said sleeve 14, it being understood that the shank 10 is held stationary.

In the use of my wrench the jaw 8 may be suitably adjusted by disengaging the teeth 11 and 5 as above described, until the same firmly grips a piece of work represented by the numeral 20. It is to be understood that the shanks 1 and 10 are now substantially parallel to each other, and when the wrench is rotated in either direction, the upper ends of said shanks will be swung toward each other, which results in the angular arrangement of the movable jaws and accordingly an increased gripping of the work 20.

Having fully described my invention, I claim:

In a wrench of the character described,

relatively stationary and movable shanks having coöperating jaws and provided upon their inner adjacent longitudinal edge with normally inter-fitting teeth, which teeth are adapted for disengagement to permit of a longitudinal movement of the movable shank, the movable shank having its free end provided with a lateral and inward extension terminating in a plane beyond the teeth of said movable shank, said extension being adapted to engage the stationary shank for forming a pivot between said shanks, whereby the jaw ends of said shanks are capable of being oscillated toward or away from each other without disengaging any of said teeth, means surrounding said shanks to guide the movable shank in its swinging movement, and springs carried by said means to normally press said teeth into close engagement and permitting them to disconnect.

In testimony whereof I affix my signature in presence of two witnesses.

SIDNEY MOSES BARABE.

Witnesses:
R. D. FORRESTER,
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