G. VALENZA.

WRENCH.

APPLICATION FILED MAY 3, 1911.

1,019,204. Patented Mar. 5, 1912.

Fig. 1.

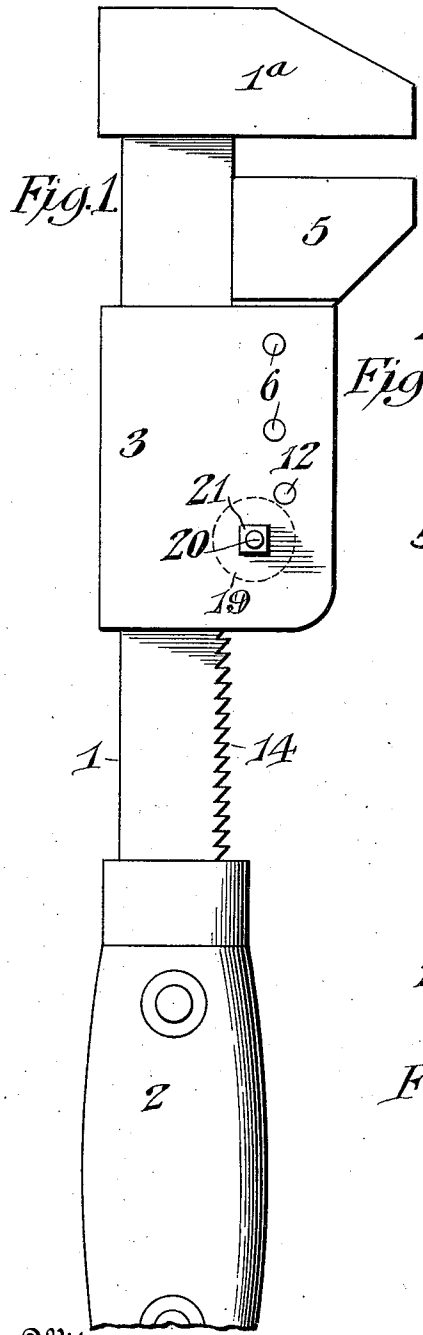


Fig. 2.

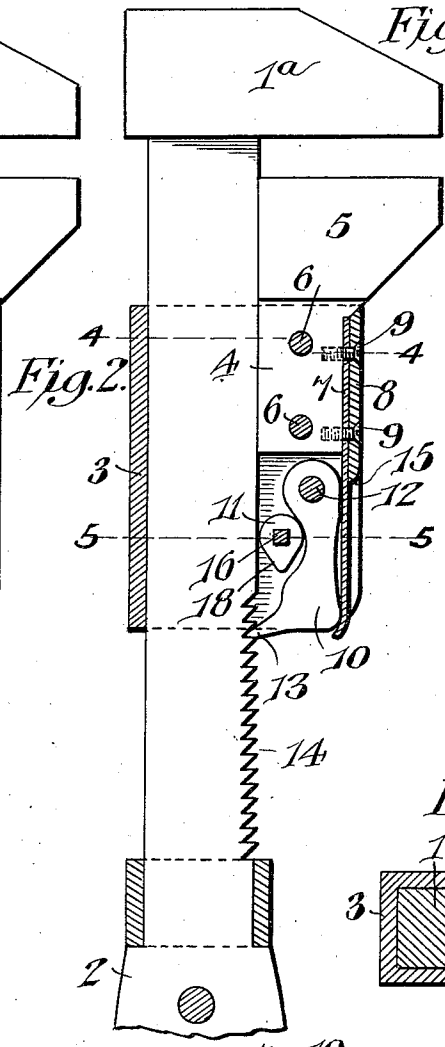


Fig. 3.

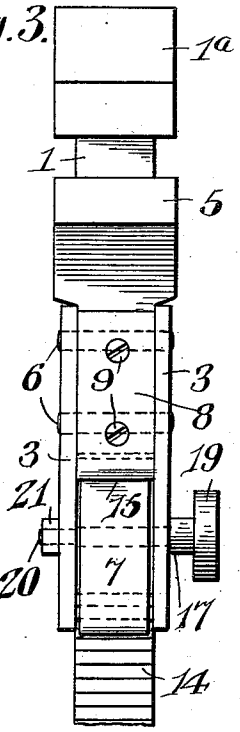


Fig. 4.

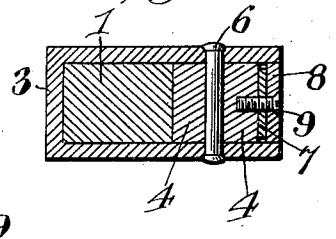
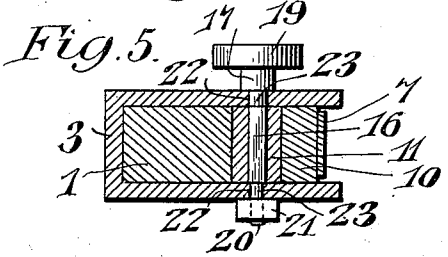


Fig. 5.



Witnesses

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WRENCH.

1,019,204. Specification of Letters Patent. Patented Mar. 5, 1912.

Application filed May 3, 1911. Serial No. 624,795.

To all whom it may concern:

Be it known that I, GANDOLFO VALENZA, a citizen of the United States, residing at Hastings, in the county of Las Animas and State of Colorado, have invented a new and useful Wrench, of which the following is a specification.

The invention relates to improvements in wrenches.

The object of the present invention is to improve the construction of wrenches, and to provide a simple and efficient wrench of greath strength and durability, adapted to be cheaply constructed, and capable of easy and rapid operation.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claim hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claim, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a side elevation of a wrench, constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a front elevation of the wrench, a portion of the shank being broken away. Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 2. Fig. 5 is a transverse sectional view on the line 5—5 of Fig. 2.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the accompanying drawing in which is illustrated the preferred embodiment of the invention, 1 designates a shank provided at its outer end with a fixed jaw 1^a and equipped at its inner end with a suitable handle 2 and slidably receiving a sleeve or casing 3, constructed of heavy sheet metal, or other suitable material. The sleeve or casing, which is approximately U-shaped in cross section, is composed of spaced parallel sides and a connecting back portion. The parallel sides of the sleeve embrace the shank 1 and project forwardly beyond the front edge of the same and receive a short shank or extension 4 of an adjustable jaw 5, which fits against the front edge of the shank 1. The short shank or extension 4 of the movable jaw 5 is secured by rivets 6, or other suitable fastening devices between the sides of the sleeve or casing. The pins or rivets 6 pierce the shank or extension 4 of the movable jaw and the sides of the sleeve or casing, which projects in advance of the outer or front edge of the short shank or extension 4 to receive a spring 7 and a plate 8. The spring 7 and the plate 8 fit within and fill the space between the projecting front edges of the sides of the sleeve or casing 3, and they are secured to the short shank or extension 4 by screws 9, which pierce the plate 8 and the attaching portion of the spring 7. The short shank 4 extends from the outer end of the sleeve to a point approximately midway between the inner and outer ends thereof, and the inner half of the space between the projecting portions of the sides of the sleeve or casing receives a pawl or dog 10 and an eccentric or cam 11. The pawl or dog 10 is mounted at one end on a transverse pivot 12, and it is provided at its other end with an inwardly projecting tooth 13, which is adapted to engage a toothed portion of the shank 1. The shank 1 is provided at its front edge with a longitudinal series of teeth 14, shouldered at the outer end and adapted to be engaged by the pawl or dog 10, which is maintained in engagement with the toothed portion of the shank 1 by the spring 7. The free portion of the spring extends longitudinally of the outer edge of the pawl or dog 10, and it bears against the same opposite the tooth 13. The inner end 15 of the attaching plate 8 projects beyond the short shank or extension 4 and operates to brace and stiffen the free portion of the spring 7.

The eccentric or cam 11 is mounted on a squared portion 16 of a transverse pin 17, and is arranged between the pawl or dog 10 and the shank 1, and it is provided with a tapered projecting portion 18, adapted through the rotary movement of the cam or eccentric to be engaged with the pawl or dog 10 to carry the tooth 13 thereof out of engagement with the shank 1. When the pawl or dog 10 is disengaged from the shank 1, the sleeve and the adjustable jaw are adapted to slide freely along the shank in either direction. The beveling of the teeth 14 at the inner side permits the adjustable jaw to slide outwardly along the shank 1, when the pawl or dog 10 is in engagement with the teeth 14, the cam or ec-

centric being operated when it is desired to slide the jaw inwardly. The pin 17 is provided at one end with a suitable head 19 to enable it to be readily rotated, and its other end 20 is threaded for the reception of a nut 21, which secures the pin in suitable openings 22 in the sides of the sleeve or casing The pin 17 is provided with spaced rounded portions 23, and the openings 22 are circular to form bearings for the same.

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

A wrench including a shank having a fixed jaw at the outer end and provided along one side with teeth, an approximately U-shaped sleeve slidably embracing the sides of the shank and having its sides extending in advance of the same, a movable jaw provided with an extension fitted against the shank between the extended portions of the sides of the sleeve, a flat spring fitted against the extension of the movable jaw and extending beyond the jaw and arranged between the sides of the sleeve, a plate fitted against the spring and also arranged between the sides of the sleeve, fastening means piercing the plate and the spring and securing the same to the extension of the movable jaw, a dog pivoted between the sides of the sleeve below the extension of the movable jaw and provided with a tooth for engaging the toothed portion of the shank and maintained in such engagement by the said spring which bears against the outer side of the dog, and an eccentric mounted between the sides of the sleeve or casing and interposed between the dog and the shank and provided with a pivot piercing the sides of the sleeve and having exteriorly arranged operating means for rotating the eccentric to carry the dog out of engagement with the toothed portion of the shank.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GANDOLFO VALENZA.

Witnesses:
ISADOR CORADINO,
R. C. LEEDHAM.