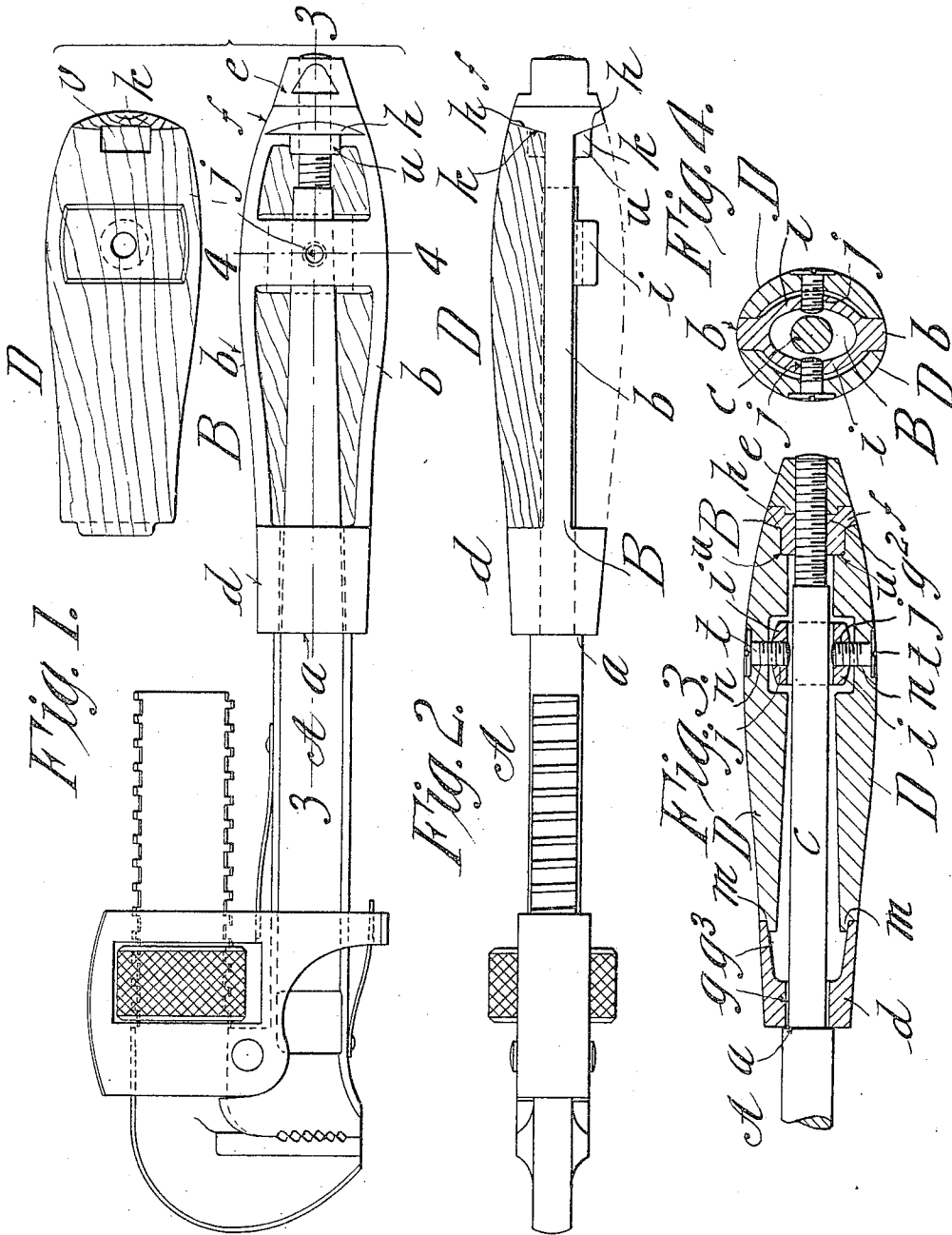


A. L. MOORE.
 PIPE WRENCH HANDLE.
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949,731.

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WITNESSES:

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PIPE-WRENCH HANDLE.

949,731.

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To all whom it may concern:

Be it known that I, ARTHUR L. MOORE, a citizen of the United States of America, and resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Pipe-Wrench Handles, of which the following is a full, clear, and exact description.

The object of this invention is to provide for a wrench, and more especially a pipe wrench, a handle which is substantially elliptical in cross section, and comprising cheek-pieces which are preferably of non metallic material, and a handle-frame of peculiar construction for supporting and carrying the cheek pieces, together with provisions for the detachable engagement and connection of the cheek pieces on the handle frame.

The invention consists in the particular combination or arrangement of parts of certain specific constructions, as hereinafter described with especial reference to the accompanying drawings, and as set forth in the appended claims.

In the drawings,—Figure 1 is a side elevation of a wrench of the well known Stillson type having my improved construction of handle thereon,—one of the detachably connected cheek pieces being represented as removed from the handle frame and separately represented as in rear elevation or inner face view. Fig. 2 is a plan view of the wrench indicating the somewhat narrower aspect of the handle as viewed at the upper edge thereof. Fig. 3 is a longitudinal sectional view through the handle portion of the wrench as taken on the line 3—3, Fig. 1. Fig. 4 is a cross section on line 4—4, Fig. 1.

Similar characters of reference indicate corresponding parts in all of the views.

There being a manifest desire in the trade for a pipe-wrench having a handle fitted and engaged about the tang or handle-bar of the wrench bar, which is cross sectionally elliptical, and deeper in its vertical than its horizontally transverse dimension, and including non-metallic side sections or cheeks, I have devised the here illustrated wrench with a view to meeting such trade requirements, and to render it practicable and convenient to replace the non-metallic side cheek members as occasion therefor may require, as is comparatively frequently the case following

the repeated dropping, and other hard usage to which the wrench is subjected.

In the drawings, A represents the shank or handle-bar of the pipe-wrench having a shoulder *a* at an intermediate portion of its length, the tang or handle-bar portion *c* rearwardly beyond the shoulder being of reduced cross sectional size. B represents a metallic skeleton handle frame engaged on the said tang of the handle bar and in confinement against the shoulder *a*, being so held by the locking nut *e* screw engaged on the threaded rear end portion of the tang which is extended through and beyond the handle frame. The said handle frame comprises substantially longitudinally ranging, though slightly curved, members *b b*, most clearly, facewise, shown in Fig. 1; forwardly and rearwardly located, cross sectionally elliptical members *d* and *f* uniting the opposite members *b b* and having openings *g* and *g*² in axial alinement there-through,—the opening in the forward member *d* being rearwardly enlarged, as represented at *g*³ in Fig. 3, while the forward and oppositely located edge portions *h* of the rear member *f* are forwardly and inwardly beveled, as represented in Figs. 1, 2 and 3; and the said metallic skeleton handle frame also comprises transversely arranged opposed and separated members *i i*, slightly outwardly bowed, and extending between, and integral with, intermediate portions of the opposite longitudinally ranging handle frame members *b b*. And the said opposed transversely arranged members *b b*, which span the spaces between the longitudinal members, and are open between them to afford space for occupancy of an intermediate portion of the tang,—have centrally located screw threaded sockets *j* therein.

D D represent duplicate removable cheek pieces shaped to have a matching fit on the opposite faces of the longitudinally ranging frame members and formed with undercut or beveled rear ends *k* and with step shaped forward ends *m* to have interlocking engagements within the rearwardly enlarged open portion of the forward frame member *d*. By inserting the step shaped forward extremities of the cheek members within and for engagement with the wall of the handle frame portion *d* at the rearwardly opening orifice in the latter, the cheek members may be readily swung or slid to their positions to

constitute, in conjunction with the frame, the complete handle of the desired form, and having the surfaces of the cheek members, at their edges and ends merged into and
5 smoothly continuous with the exposed surfaces of the metallic skeleton handle frame.

The cheek members or handle sides D have round holes n through their thicknesses countersunk at their outer ends; and headed
10 screws t t are, by the straight shanks thereof passed through the said holes and have screw engagements in the aforementioned threaded sockets j in the transversely arranged, and opposed handle frame members
15 i i ,—the suitably wide heads of the screws seating in the countersunk orifices of the screw accommodating holes n ; and while these screws confine the cheek members in their places as parts of the handle such
20 cheek members are prevented from having any pivotal or other movements of displacement because of their engagement and interlocked relations as shown and described with the handle frame members f and d , the
25 one f having integral rectangular lugs u which engage in recesses v in the inner sides of the cheeks.

The cheeks or handle sides D D are preferably composed of non-metallic material
30 such, for instance, as wood, or hard fiber, whereby the portion of the wrench to be gripped has a good feeling and is compatible with an appreciated lightness.

While I am aware that it is not new to
35 provide removable sides or cheeks on the handles of various tools or implements, I have never perceived that there has been any manifest manner of adaptation of the same for a wrench comprising a handle frame
40 through which the tang of the wrench bar is passed and hence the particular combination and arrangement of the parts having the specific forms and construction set forth are for the attainment of material improvements and a desirable advance or increase in
45 the utility and value of the handle portion of the wrench.

I claim:

1. The combination with the shank or handle-bar of a wrench having a shoulder at an intermediate portion of its length and of reduced cross sectional size rearwardly therebeyond; of a skeleton handle frame, engaged on said shank in confinement against
50 the shoulder thereof, comprising opposite longitudinally ranging members, forwardly and rearwardly located cross sectionally elliptical members uniting the said opposite members having openings therethrough in
60 axial alinement, the opening in the forward member being rearwardly enlarged and the forward oppositely located edge portions of the rear member being forwardly and in-

wardly beveled, and transversely arranged opposed and separated members extending
65 between and integral with the intermediate portions of said opposite longitudinally ranging members, and having centrally located screw threaded sockets; removable cheek pieces shaped to fit on the opposite
70 faces of said longitudinally ranging frame members formed with undercut or beveled rear ends, and with step shaped forward ends having interlocked engagements within the rearwardly enlarged opening in said
75 forward frame portion, and having holes through their thicknesses; and headed screws, the shanks of which are passed through the said holes and have screw engagements in said threaded sockets in said transversely
80 arranged members.

2. The combination with the shank or handle-bar of a wrench having a shoulder at an intermediate portion of its length of reduced cross sectional size rearwardly
85 therebeyond; of a skeleton handle frame, engaged on said shank in confinement against the shoulder thereof, comprising opposite longitudinally ranging members, forwardly and rearwardly located cross sectionally
90 elliptical members uniting the said opposite members, having openings therethrough in axial alinement, the opening in the forward member being rearwardly enlarged and the forward oppositely located edge portions of
95 the rear member being forwardly and inwardly beveled, and transversely arranged opposed and separated members extending between and integral with the intermediate portions of said opposite longitudinally
100 ranging members, and having centrally located screw threaded sockets, and the handle frame having integrally formed rectangular lugs adjacent and forwardly of said opposed beveled portions; removable cheek pieces
105 shaped to fit on the opposite faces of said longitudinally ranging frame members formed with undercut or beveled rear ends, and with lug receiving recesses in their inner faces adjacent such rear ends, and with
110 step shaped forward ends having interlocked engagements within the rearwardly enlarged opening in said forward frame portion, and having holes through their thicknesses; and headed screws, the shanks
115 of which are passed through the said holes and have screw engagements in said threaded sockets in said transversely arranged members.

Signed by me at Springfield, Mass., in
presence of two subscribing witnesses.

ARTHUR L. MOORE.

Witnesses:

WM. S. BELLOWS,
G. R. DRISCOLL.