

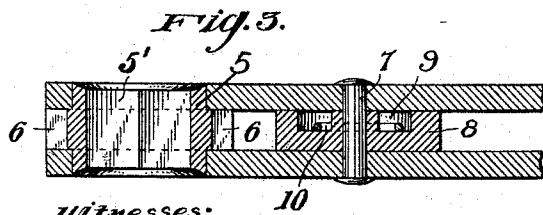
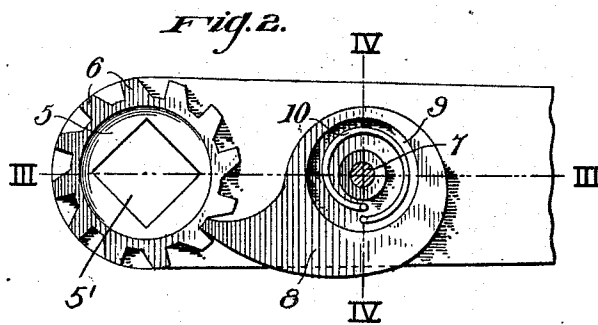
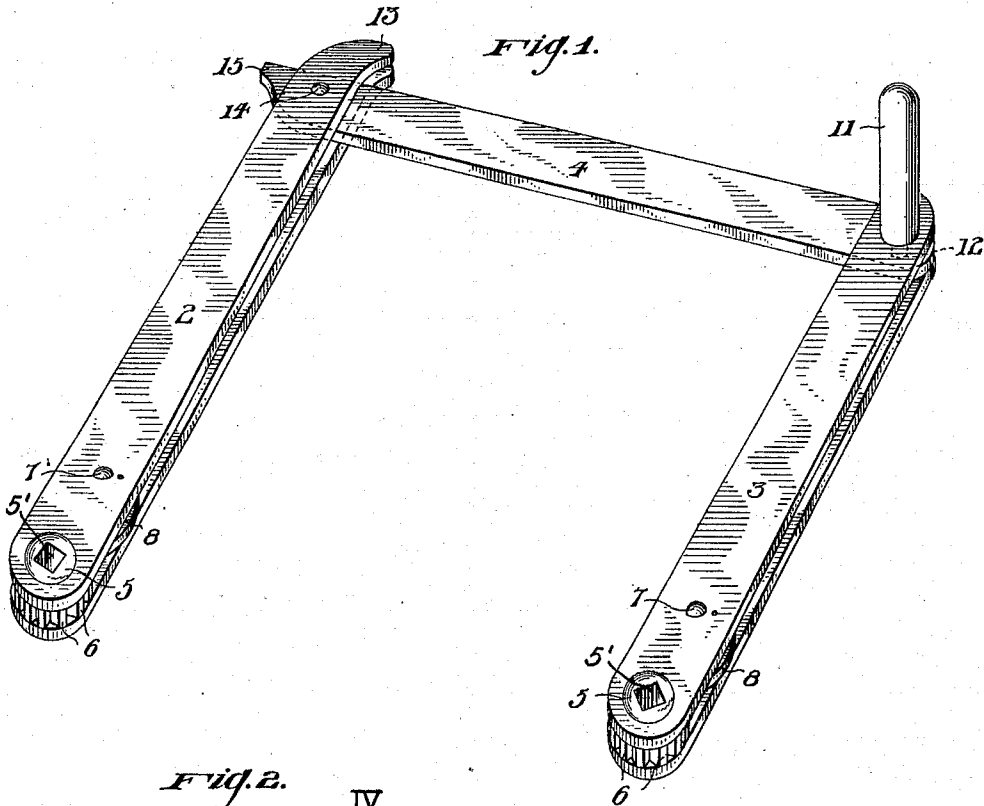
P. E. DOOLITTLE.

TOOL.

APPLICATION FILED APR. 3, 1909. RENEWED MAR. 9, 1911.

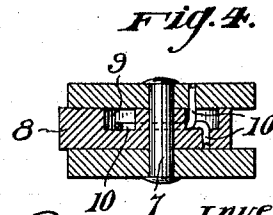
1,005,815.

Patented Oct. 17, 1911.



witnesses:

J. C. Hoffman
W. D. Jones Jr.



Inventor
Perry C. Doolittle
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Attorney

UNITED STATES PATENT OFFICE.

PERRY E. DOOLITTLE, OF TORONTO, ONTARIO, CANADA, ASSIGNOR TO THE DOOLITTLE RIM COMPANY, LIMITED, OF TORONTO, CANADA.

TOOL.

1,005,815.

Specification of Letters Patent.

Patented Oct. 17, 1911.

Application filed April 3, 1909, Serial No. 487,801. Renewed March 9, 1911. Serial No. 613,433.

To all whom it may concern:

Be it known that I, PERRY E. DOOLITTLE, a resident of Toronto, in the Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Tools, of which the following is a specification.

My invention relates to a new and improved tool.

An object of the present invention is, the provision of means whereby the tool may be employed for simultaneously operating on or for turning two or more bolts, nuts, drills, or other like members with one operation.

A further object of my invention is to provide a tool having a small but powerful lever mechanism.

My improved tool is particularly adaptable for use in connection with a demountable rim of an automobile wheel of that type in which the base of the rim is split transversely and the ends of which are connected by screw-bolts or the like. In this instance both bolts may be simultaneously turned to expand or contract the rim and in cases where the detachable rim has become rusted on the fixed rim, or for any other cause, it is difficult to move it in the act of demounting the rim, the leveraging device of the tool may be advantageously employed. A further illustration of the applicability of my invention is in connection with tramway or railway construction where holes are required to be drilled in plates or rails, in this case the tool may be applied to a gang of drills and a number of holes simultaneously drilled.

In the accompanying drawing which illustrates an application of my invention, Figure 1, is a perspective view of a tool embodying my invention; Fig. 2, an enlarged side elevational view of the ratchet mechanism; Fig. 3, a detail sectional view taken on line III—III of Fig. 2; and Fig. 4, a similar view taken on line IV—IV of Fig. 2.

Referring to the drawing, which illustrates the simplest form of my invention, the tool comprises two ratchet-members 2 and 3 each preferably formed of two plates. Members 2 and 3 are pivotally connected at their outer ends by a cross-bar 4. With this construction when the ratchets are applied to bolt heads or connected with drills

for boring, a movement applied through one of the ratchet-members' ends is transmitted through the connecting-bar 4 to the other ratchet-member which is simultaneously operated to a like extent. A ratchet-wheel 5 having a central squared nut socket 5' having teeth 6 preferably formed with very strong tips, is carried on each of the members 2 and 3. The teeth are each preferably formed with a tip lying in a segment of a circle whose center is the center of the wheel, thus insuring great strength at the tips.

Located between the plates, constituting the ratchet-members 2 and 3, and projecting very slightly therefrom and mounted on a pivot 7, is a spring pressed pawl 8. Pawl 8 is formed with an annular recess 9 into which a portion of a spiral spring 10 is inserted having one end engaging a plate of the ratchet-member and its other end the pawl.

Ratchet-member 3 as shown is provided with an operating handle 11, in the application of my invention as illustrated the handle is formed integral with a pivot 12 employed for connecting one end of the cross-bar and an end of the member 3, but this handle may be a separate member and be attached to one of the ratchet-members or to a connecting bar as I do not desire to limit myself to the position in which this handle is to be applied, as the character of the work to be performed will determine the most convenient place of attachment.

Ratchet-member 2 is very similar to member 3, with the exception of its outer end. This end, instead of being terminated around a pivot as is the outer end of member 3, is formed with a hook-like extension 13, of such shape as to conveniently engage with one of the objects to be moved by the tool. The corresponding end of the connecting bar is also projected beyond the pivot 14 to provide a bearing-member 15 adapted for abutment against a contiguous resisting body.

My invention is not limited to the employment of two ratchet-members and a single connecting-bar as shown, for it is evident that the tool may be composed of a series of ratchet-members connected by a plurality of bars. These members may be formed so as to be detachable from one another.

In use the tool may be operated to turn

the bolts or other members in either direction by simply reversing its position on the bolts, or similar articles, thus doing away with the necessity of an extra mechanism or
5 reversing ratchet movement of the ratchet-wheels.

It will be obvious that two or more bolts or drills or similar articles, may be operated by a tool constructed in accordance with
10 my invention, whether arranged in a straight or irregular line or in a circle.

What I claim is:

A tool having a plurality of arms, a connecting member to which each arm is
15 loosely pivoted at one end, the other end of

each arm being free and provided with a ratchet wheel therein, said ratchet wheel having a socket extending through the wheel and opening on both sides of the arms whereby the device may be reversed, a
20 spring pressed pawl carried by each arm and engaging said wheel, and an operating handle for said device, substantially as described.

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

PERRY E. DOOLITTLE.

Witnesses:

A. C. WAY,

W. G. DOOLITTLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."