C. W. RISDEN.

COMBINATION TOOL.

APPLICATION FILED FEB. 24, 1915.

**1,179,565.**

Patented Apr. 18, 1916.

Fig. 1

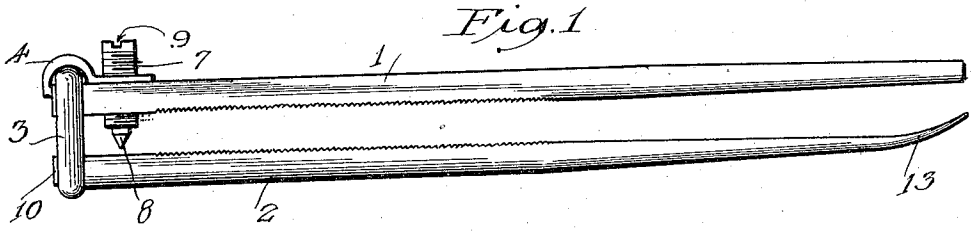



Fig. 2

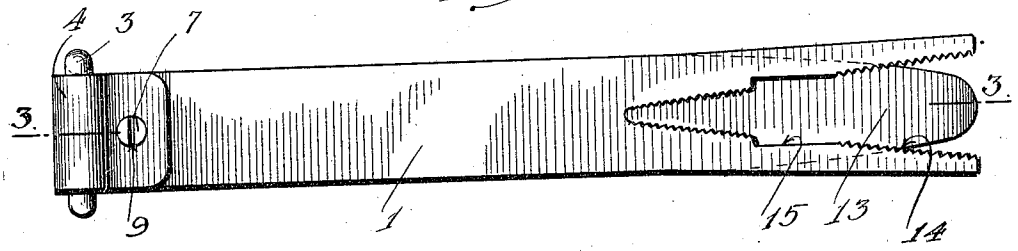



Fig. 3.

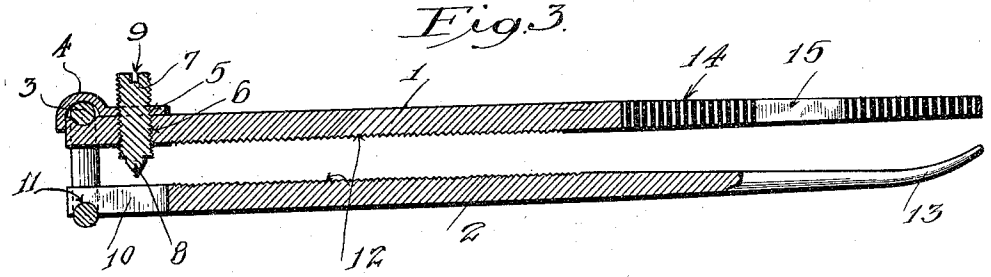
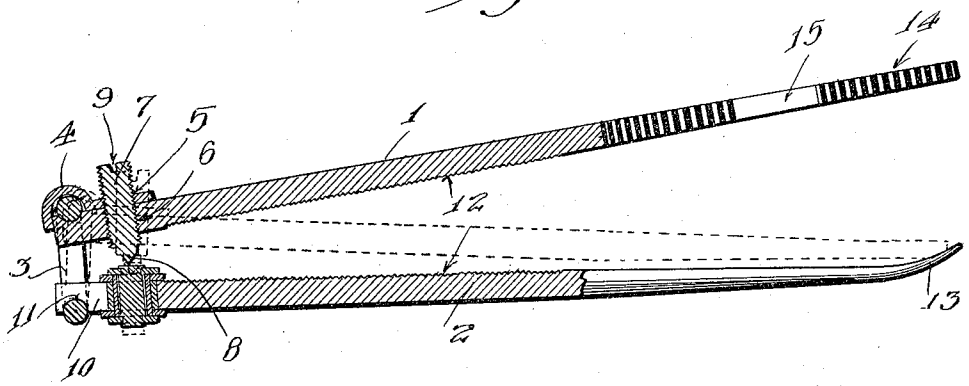



Fig. 4.




Witnesses:
Sally Fusso.
Otto J. Alter.

Inventor
Charles Willis Risden
By Frederick P. Fish Atty

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

CHARLES WILLIS RISDEN, OF LOS ANGELES, CALIFORNIA.

## COMBINATION-TOOL.

1,179,565. Specification of Letters Patent. Patented Apr. 18, 1916.

Application filed February 24, 1915. Serial No. 10,268.

*To all whom it may concern:*

Be it known that I, CHARLES WILLIS RISDEN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Combination-Tool, of which the following is a specification.

This invention relates to improvements in combination tools of the "plier" type and resides in the provision of a tool of such character which is primarily designed for punching rivets, and in which the handles comprise separate tools capable of being readily detached for independent use.

Another object of this invention is to provide a combination tool of the character described in which there is provided an adjustable rivet punching tool arranged to hold in position the means for detachably connecting the handles with one another.

A further object is to simplify and improve tools of the character described, in order that they may be quickly and easily assembled and disassembled, and when disassembled, arranged in compact form so that the parts may be placed in comparatively small space within a tool kit box, pocket or other receptacle.

With these and other objects in view, the invention consists in certain novel features of construction, combination, and arrangement of parts as will be hereinafter fully described, illustrated and claimed.

Referring to the drawings: Figure 1 is a side elevation of the tool. Fig. 2 is a top plan view of the tool. Fig. 3 is a longitudinal sectional view, taken on the plane of line 3—3 of Fig. 2. Fig. 4 is a longitudinal sectional view of the tool, showing it arranged to punch a rivet from a sprocket roller chain.

Referring in detail to the drawings, 1 and 2 designate preferably relatively straight handles, and 3 a preferably substantially rectangular ring-shaped connecting link, which is pivotally held upon one end of the handle 1 by a clamping plate 4. The link 3 is cylindrical in cross section and engages within a transverse semicircular recess formed in the outer face of the handle 1. The clamping plate 4 at its inner end is substantially flat and engages upon the outer face of the handle 1. A screw threaded opening 5 is formed through the flat end of the plate 4 and is designed to register with a screw threaded opening 6 formed through the handle 1. In these openings 5 and 6 is adjustably mounted a rivet punching tool 7 formed in the nature of a cylindrical screw and having its inner end disposed between the handles 1 and 2 and reduced and pointed as at 8. The outer end of the screw is formed with a tool receiving groove 9 extending transversely thereof. The outer end of the plate 4 is curved, engages the link 3, and at its free end overlaps and engages the adjacent end of the handle 1. This plate 4 is held in position by means of the tool 7. One end of the handle 2 is bifurcated to produce parallel arms 10, each of which is formed with a transverse semicircular recess 11 in its outer face, to receive the lower horizontal portion of the link 3. The opposed faces of the handles 1 and 2 are roughened or corrugated as at 12 intermediate the ends of said handles to permit of the use of the device as a pipe or other similar wrench, and the handle 2 is tapered toward its outer end as at 13 to provide a tire tool. The handle 1 is formed with a V-shaped recess in its free end, said recess opening out at the free end and being formed intermediate its ends with parallel nut engaging faces 15. The opposed edges of the recess 14, with the exception of the parallel faces 15 thereof, are roughened or corrugated. This handle 1 may be used independently of the handle 2 as a wrench for various purposes.

In using the tool for punching rivets, for example, from sprocket chains, the handles 1 and 2 are separated and the arms 10 inserted through the chain so as to receive one of the cylindrical barrel portions thereof between them, as shown in Fig. 4 of the drawings. The handle 2 is thus inserted for operation with the recesses 11 in the arms 10 disposed on the under side of the handle, and the link 3 is placed in engagement in said recesses 11. When the handles are brought together, the rivet engaging end 8 of the tool 7 is caused to engage with the rivet or connecting pin of the chain and pressure on the handles will result in the punching of the rivet from the chain. The tool 7 may be adjusted so that it will operate in connection with chains of different sizes.

When it is desired to use the tool for purposes other than punching rivets, the handles are detached by moving the link 3 out of engagement with the recesses 11 in the handle 2, and either handle may be used as

a tool. The handles after being detached may be placed one upon the other, and when in such position take up little room, and may be easily stored in a tool kit box, pocket or other receptacle.

With reference to the foregoing description of the accompanying drawings, it will be observed that I have provided a combination tool which will prove highly useful to motorists and motorcyclists, in that it may be used in various ways in repairing automobiles and motorcycles and be quickly and easily operated and also conveniently carried.

In practice I have found that the form of my invention illustrated in the drawings and referred to in the above description as the preferred embodiment, is the most efficient and practical, yet realizing that the conditions concurrent with the adoption of my device will necessarily vary, I desire to emphasize the fact that various minor changes in details of construction, proportion and arrangement of parts may be resorted to, when required, without sacrificing any of the advantages of my invention as set forth in the appended claims.

What I claim is:

1. A tool comprising a handle, a link pivoted to the handle, a second handle being bifurcated at one end, said bifurcated end having recesses therein to receive said link, and a rivet punching tool carried by the first handle and located between said handles and above the bifurcated portion of the second handle.

2. A tool comprising a handle, a link, means to pivotally hold the link on said handle, a rivet punching tool carried by said handle and holding said link holding means in position, and a second handle being detachably connected with said link and having its connected end bifurcated, said tool being arranged between the handles and in alinement with the bifurcation in the second handle.

3. A tool of the character described, comprising handles, a punch member carried by one of the handles, and means to detachably and pivotally connect the handles with one another, arranged to allow relative longitudinal movement of the handles.

4. A tool comprising handles, a ring-shaped link surrounding the handles near one end thereof, and means to pivotally connect one side of the link with one of the handles, the other of the handles having a transverse recess in its outer face receiving the other side of the link.

5. A tool comprising handles, a ring-shaped link surrounding the handles near one end thereof and having one side pivoted to one of the handles, the other handle having a recess in its outer face at one end thereof adapted to receive the other side of the link, and a punch member carried by one of and located between the handles.

6. A tool comprising a handle, a link pivoted to the handle, a second handle having an end opening bifurcation therein detachably pivoted to said link at its bifurcated end, and a punch member carried by the first handle and registering with the bifurcation in the second handle, said bifurcation opening upon the inner and outer faces of said handle.

7. A tool comprising handles, each having a transverse recess in the outer face thereof, a link engaging in said recess, a plate mounted upon and pivotally holding the link to one of the handles, and a punch member inserted through the plate and last named handle and holding the plate in place.

8. A tool comprising handles, each having a transverse recess in the outer face thereof, a link engaging in said recess, a plate mounted upon and pivotally holding the link to one of the handles, and a punch member inserted through the plate and last named handle and holding the plate in place, the other of said handles having a bifurcation in the end thereof which is connected with the link, said punch member registering with the bifurcations.

9. A tool comprising a handle, a ring-shaped link pivoted to and surrounding one end of the handle, a second handle having an end opening bifurcation formed therein opening upon the inner and outer faces of the handle, said second handle having a transverse recess in its outer face at the bifurcated end thereof receiving the link, and a punch carried by the first handle and registering with the bifurcation.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 16th day of February, 1915.

CHARLES WILLIS RISDEN.

In presence of—
ANNA F. SCHMIDTBAUER,
LORA M. BOWERS.

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