

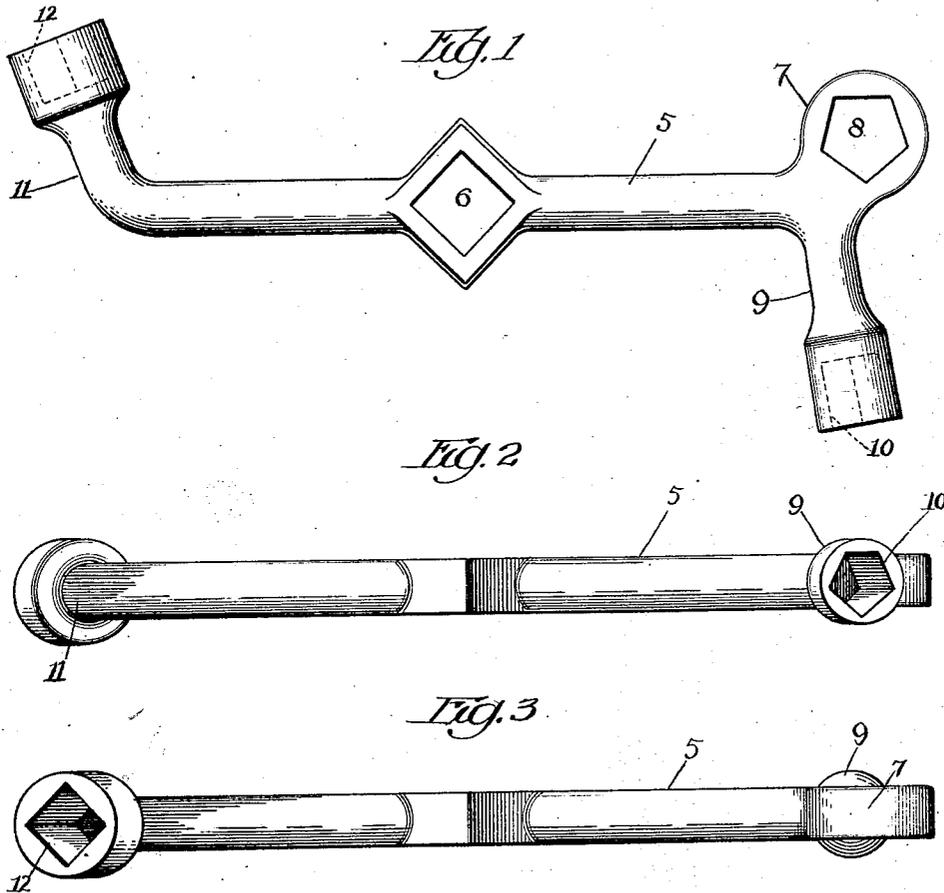
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W. CHIRPE

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FIRE HYDRANT WRENCH

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## UNITED STATES PATENT OFFICE.

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## FIRE-HYDRANT WRENCH.

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This invention relates to fire hydrant wrenches, and its object is to provide a combination wrench of strong, substantial, compact and simple construction for use in operating the hydrant valves, for flushing or other purposes.

It is customary to inspect fire hydrants at intervals, to thaw them out when frozen, to flush them, to test the operation of the valves, and to keep them in good working order. For this purpose some municipalities employ special inspectors whose duty it is to travel about in certain districts and test the valves and flush the hydrants at regular intervals throughout the year. For this purpose the inspector is required to carry about with him suitable wrenches, and sometimes other tools, and since the hydrant valves are not easily operated and frequently becomes stuck or frozen, a comparatively large wrench which will give necessary leverage is required. In many cities there are different kinds of hydrants in a district covered by an inspector, these hydrants having different kinds of valves and nuts, and sometimes requiring the use of a plurality of wrenches. My invention has for its object to provide a combination wrench which is adapted for use with the Chicago, Wood, Cregier, and other hydrants, which is smooth to the hands, compact in size, durable, easy to operate, and which will give the required leverage.

In the accompanying drawings I have illustrated a selected embodiment of the invention which I have found satisfactory in practical use, and referring thereto

Fig. 1 is a plan view of the combination wrench;

Figs. 2 and 3 are edge views of the wrench.

Referring to the drawings, the wrench comprises an elongated shank 5 having at or about its middle a square opening 6 adapted to engage the nozzle cap on the hydrant, which can usually be removed without much effort. One end of the shank is provided with an angular offset 7 having a hexagon opening 8 adapted to engage the wrench nut which is located above the stem nut of the hydrant and is also provided with an oppositely directed angular extension 9 having a hexagon socket 10 to engage a stem nut on the Cregier hydrant and similar hydrants. The other end of the shank is provided with an angular extension 11 having a square socket 12 for the stem nut of a Chicago hydrant and other similar hydrants. In prac-

tice the nozzle cap must first be removed, and this can ordinarily be accomplished with little leverage, for which reason the socket 6 is located at or about the middle of the shank. Then the wrench opening 8 is applied to the wrench nut of the hydrant, which is located at the top of the stem nut, and the valve is opened. The wrench nut opening is located at one extreme end of the shank so that the greatest leverage can be applied thereto, because this is frequently necessary to open a valve which is stuck. If the wrench nut is missing, which happens more or less frequently, the stem socket 10 or 12 is fitted to the nut formed on the upper end of the stem, and the stem is turned to open the valve. Here again provision is made for utilizing the greatest leverage of the wrench, and the stem nut sockets are located in angular extensions which project from opposite sides of opposite ends of the shank, and when one stem nut socket is being used, the extension of the other stem nut socket forms a handle to facilitate the use of the wrench. My improved combination wrench is simple in construction, compact in size, and is adapted to furnish the greatest amount of leverage in a simple and convenient manner for operating hydrant valves of different kinds.

This combination wrench is intended for use primarily by the inspectors who are required to travel about from hydrant to hydrant in sections or districts of a city day after day to inspect and flush the hydrants. These wrenches must be strong and substantial and must furnish considerable leverage, because they operate on stems about five (5) feet long, and valves are frequently stuck because of freezing or rusting or other causes. These inspectors walk from hydrant to hydrant, sometimes carrying the wrench in a sling under the armpit. The wrench illustrated in the drawings is approximately sixteen and one-half inches in length overall and weighs approximately four and one-quarter pounds, and it is much lighter than any other wrench or combination of wrenches suitable for the purposes that I have known. The wrench is convenient in shape so that it can be carried easily under the coat without producing objectionable bulges; it is smooth to the hands at the parts thereof which are gripped in using the wrench or carrying the wrench and will not bruise or injure the hands; and a single combination wrench can be used for a variety of hydrants so that a

single combination wrench embodying my invention will be all that an inspector will require for testing and flushing the hydrants in his district.

5 I have shown and described the wrench in a form which I have used in actual practice and found to be satisfactory for the purpose, but I appreciate the fact that it may be desirable to change the form of the openings or sockets to suit different nuts, and I reserve the right to make such changes and all other changes in the size, form, construction and arrangement of parts of my invention within the scope of the following  
15 claim:—

I claim:

As an improved article of manufacture, the wrench herein described embodying in a single integral element an elongated shank having intermediate its ends a nut-engaging opening, at one end an angular offset with a socket opening and with an oppositely-directed angular offset extension with differently-shaped socket, the other end of the shank being formed with an angular extension with a differently-shaped socket, the offsets at opposite ends of the shank being oppositely extended and at different angles with relation to the length of the shank.

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