

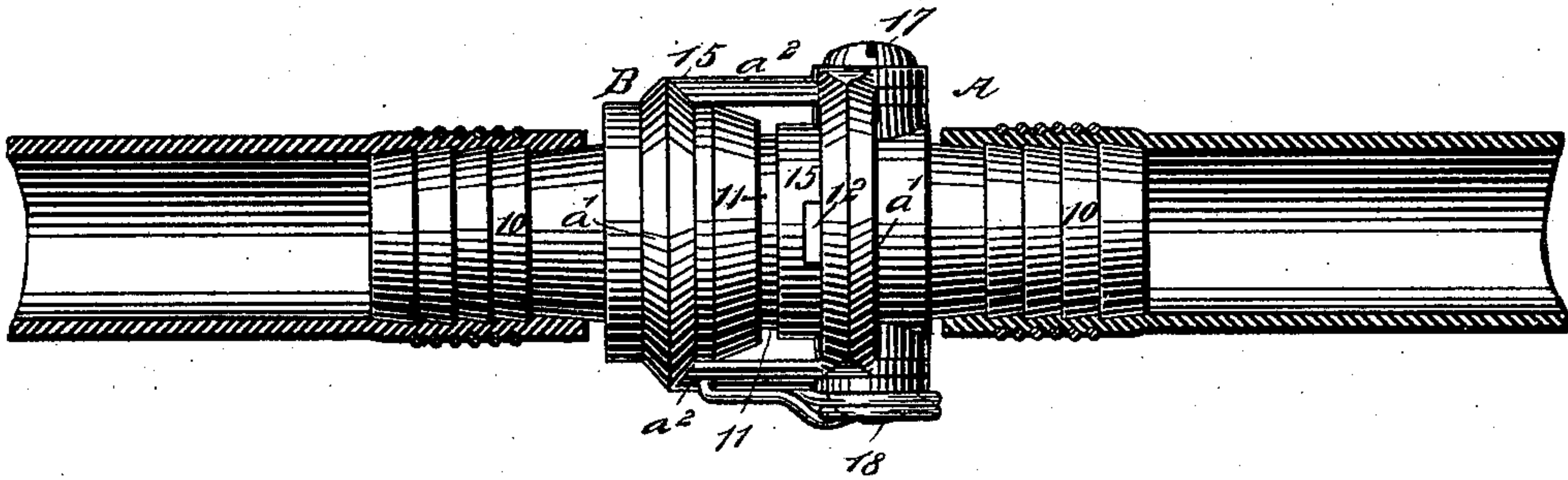
(No Model.)

J. S. BLACKBURN  
HOSE COUPLING.

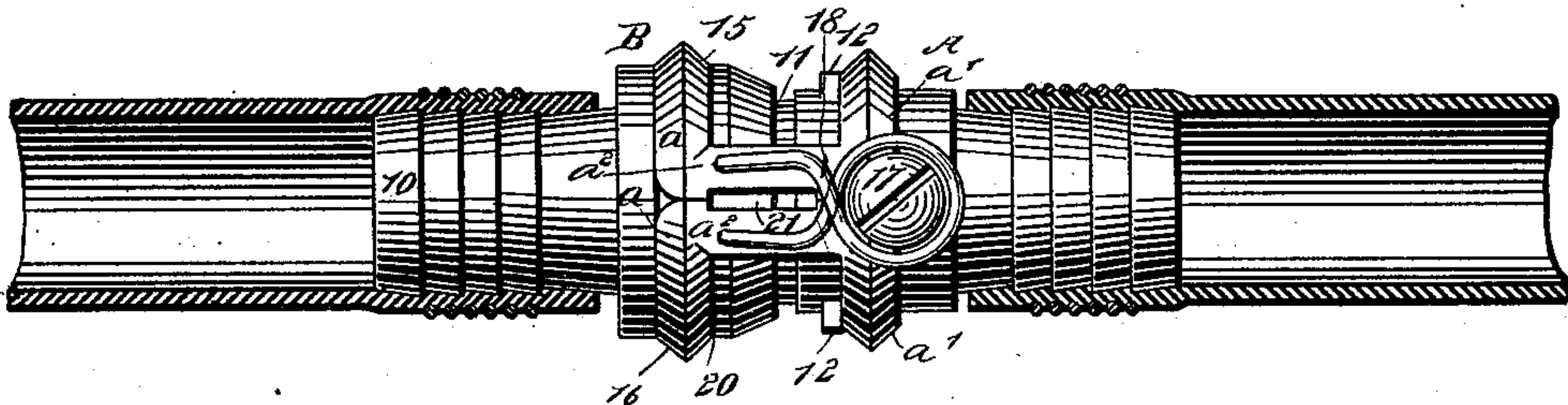
No. 574,236.

Patented Dec. 29, 1896.

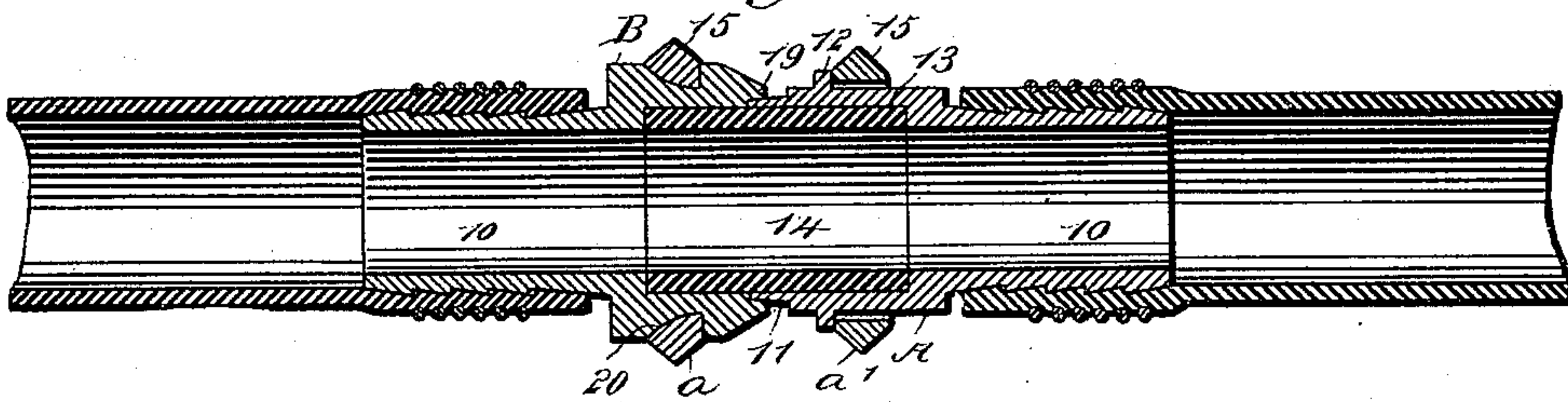
*Fig. 1,*



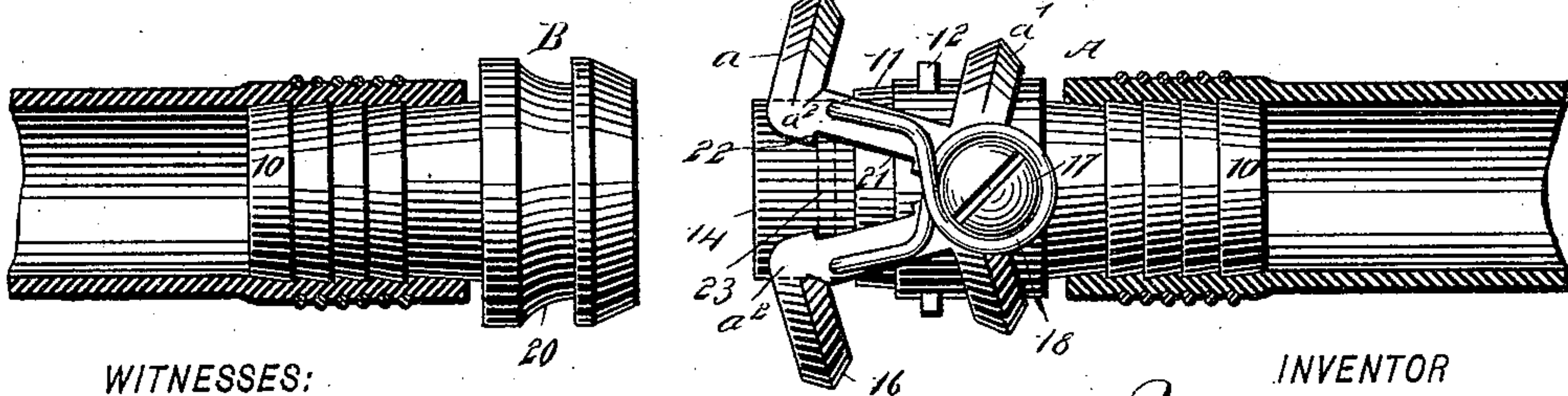
*Fig. 2,*



*Fig. 3,*



*Fig. 4.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOSEPH S. BLACKBURN, OF SALEM, OHIO, ASSIGNOR TO THE W. J. CLARK COMPANY, OF SAME PLACE.

## HOSE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 574,236, dated December 29, 1896.

Application filed May 16, 1895. Serial No. 549,539. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH S. BLACKBURN, of Salem, in the county of Columbiana and State of Ohio, have invented a new and useful Improvement in Hose-Couplings, of which the following is a full, clear, and exact description.

My invention relates to a hose-coupling; and it has for its object to improve upon the construction of the coupling for which Letters Patent were granted to me January 2, 1894, No. 420,213, and likewise to improve upon the construction of the hose-coupling set forth in the application for Letters Patent, Serial No. 520,952, filed August 22, 1894, and allowed November 27, 1894, the improvements being such as to effectually prevent the buckling or bulging of the elastic sleeve serving to form a continuation of the bores of the male and female sections of the coupler, and likewise to simplify the construction of the jaws of the coupling and to provide for a better seat for the wrench which is adapted to open the jaws.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the coupling, its sections being coupled together and the hose attached being in longitudinal section. Fig. 2 is a side elevation of the coupling in the position shown in Fig. 1. Fig. 3 is a longitudinal vertical section through the coupled sections of the coupler and through the attached hose; and Fig. 4 is a side elevation of the male and female sections of the coupling, showing said sections disengaged.

In carrying out the invention the male section A of the coupler is provided with the usual shank 10, as is likewise the female section B, and the head of the male section is reduced at its forward end to form an annular extension 11, the said extension being preferably beveled upon its outer face; and adjacent to the extension 11 the head of the male section is provided with lugs 12 or their equivalents, and the interior of the head of

the male section, as shown in Fig. 3, is provided with a counterbore 13, in which is inserted and held by frictional contact or otherwise a sleeve 14, of rubber or like material, the said sleeve being made to extend a predetermined distance outward beyond the extension of the said male section, as illustrated in Figs. 3 and 4.

The male section is provided with two segmental jaws 15 and 16. These jaws may be constructed in various ways, but ordinarily they are made as shown in the drawings, comprising a front arched bar  $a$ , having its under surface beveled in an outwardly direction, or in direction of the head of said section, and a rear arched bar  $a'$ , together with side bars  $a''$ ; but if in practice it is found desirable the rear arched bar  $a'$  may be omitted.

These jaws are pivoted at what may be termed the "sides" of the head by means of pivot pins or screws 17, one screw serving to pivot both jaws at the side of the head, and the jaws are of such dimensions that when closed their outer or front bars  $a$  meet at their ends, and they are normally held in this position by springs 18, which may be of any desired form, those shown in the drawings consisting of wire coiled around the pivots, the ends of the wire being crossed and carried to a connection with the side bars of the jaws adjacent to the front bars.

The female section B is of such interior diameter as to readily receive within it the sleeve 14 of the male head, and at the mouth of the head of the said female section an annular counterbore or recess 19 is made, having a slight taper, the said recess being adapted to receive partially or entirely the extension 11 from the head of the male section, as illustrated in Fig. 3. The head of the female section is furthermore provided with an exterior annular channel 20, the outer wall whereof is straight and the abutting wall inclined to meet the straight wall, as shown best in Fig. 4. Recesses 21 are made in the opposing edges of the side bars of the jaws 15 and 16, the recesses being somewhat rectangular, so as to present two end shoulders 22 and especially a forward end shoulder.

In the operation of this coupling the jaws are adapted to be separated by a substantially



L-shaped wrench. The separating member 23 thereof is shown in dotted lines in Fig. 4. The wrench is made to just fit in the opening made by the opposing recesses 21 in the jaws, and by turning the wrench so that its entering member will be at right angles to the side members of the jaws, or practically so, the jaws are opened and held open, since the said entering member of the wrench will find lodg-  
10 ment against the outer shoulders 22 of the said recesses 21. The sections of the coupling may now be readily separated. In coupling, the two sections are simply forced together, the sleeve entering the head of the female  
15 section and substantially abutting against the back thereof, while the extension 11 of the head of the male section will enter the counterbored portion of the head of the female section, as is likewise shown in Fig. 3, presenting a solid wall throughout the entire  
20 length of the said sleeve 14, effectually preventing it from bulging outward by the pressure of the water, and at the same time the two sections of the coupling will have sub-  
25 stantially a swivel-like movement. When the sections are thus united, the forward and

front bars of the jaws will be held in the channeled portion 20 of the female head by their springs 18.

Having thus described my invention, I 30 claim as new and desire to secure by Letters Patent—

In a hose-coupling, the combination of a male section having a counterbore, a flexible sleeve fitted on the counterbore and extended 35 forward therefrom, a female section having a bore to receive the flexible sleeve, and a beveled counterbore to receive a beveled extension of the male section, locking-jaws pivoted on the male section and adapted to swing in 40 opposite directions, each jaw having side bars and a front arched bar beveled outward on its inner surface, an annular shoulder on the female section for engagement with the arched sections, and a spring mounted on each of 45 the jaw-pivots and engaging with the jaw side arms, substantially as specified.

JOSEPH S. BLACKBURN.

Witnesses:

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