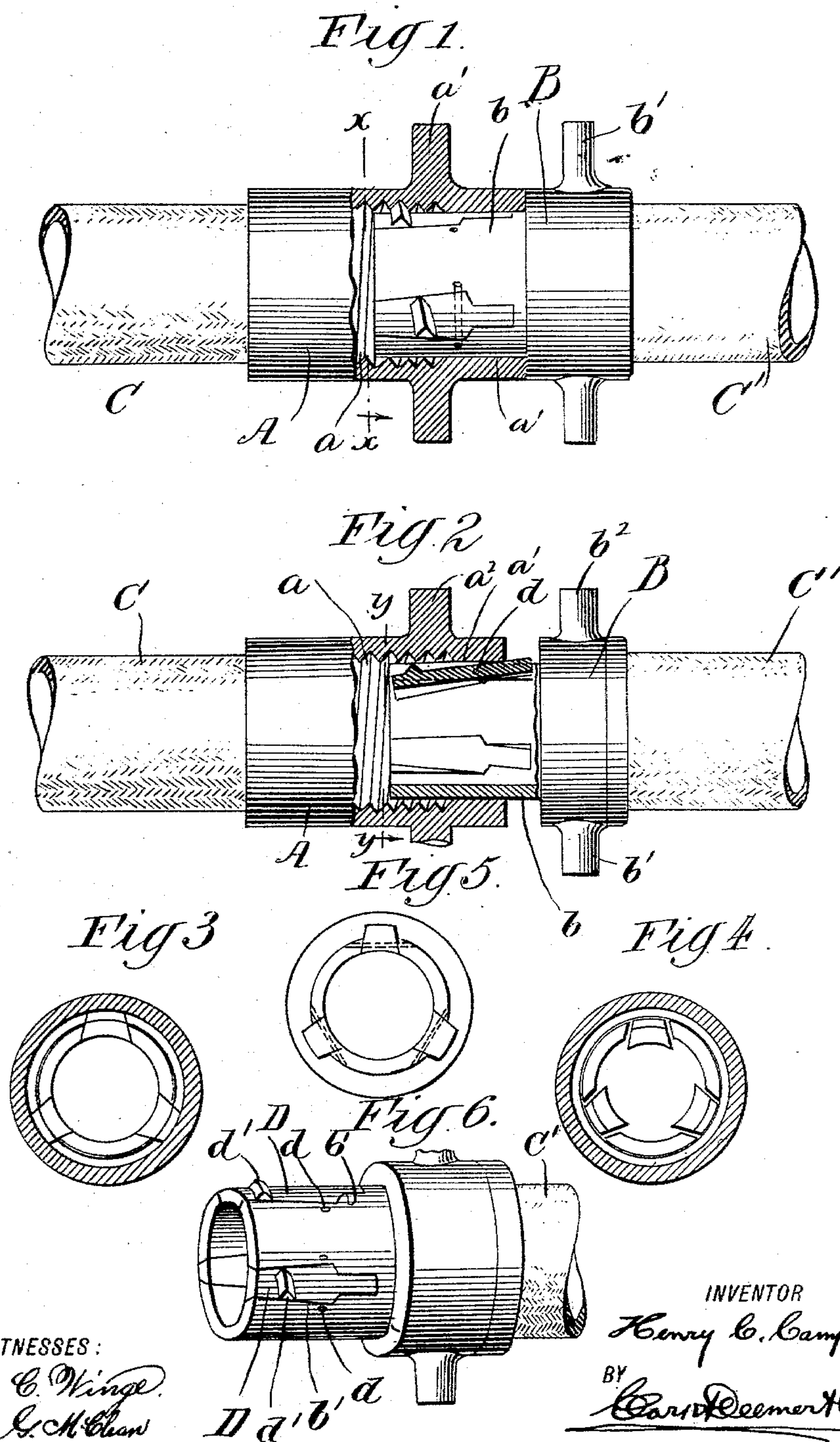


(No Model.)

H. C. CAMPBELL.  
HOSE COUPLING.

No. 589,813.

Patented Sept. 14, 1897.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

HENRY COVERLEY CAMPBELL, OF NEW YORK, N. Y., ASSIGNOR OF TWO-THIRDS TO MATILDA C. CAMPBELL AND FREDERICK W. DYER, OF SAME PLACE.

## HOSE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 589,813, dated September 14, 1897.

Application filed September 29, 1896. Serial No. 607,289. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY COVERLEY CAMPBELL, a citizen of the United States, and a resident of New York city, county of New York, and State of New York, have invented certain new and useful Improvements in Hose-Couplings, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to hose-couplings, the object thereof being to supply an efficient means for coupling sections of hose in such a manner as to avoid leakage at the joints.

The device is simple in construction, durable, and inexpensive, and by its use the necessity of flexible washers between the sections comprising the coupling is obviated.

The invention will be hereinafter fully described, and specifically set forth in the annexed claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of my improved coupling, showing the same partly broken away in cross-section. Fig. 2 is a similar view showing the coupling in process of being connected. Fig. 3 is a cross-sectional elevation on a line  $xx$  of Fig. 1. Fig. 4 is a cross-sectional elevation on a line  $yy$  of Fig. 2. Fig. 5 is an end elevation of one section of the coupling, and Fig. 6 is a perspective view thereof.

In the practice of my invention I provide two cylindrical sections A and B, adapted for telescopic connection with each other, the section B having a contracted projection  $b$  formed thereon for engagement with the inner diameter of the section A. These two said sections are secured, respectively, to the ends of pieces of hose C and C' by any suitable means.

The section A of the coupling is provided upon its inner surface with a thread  $a$ , which said thread does not extend to the outer end thereof, whereby a smooth surface  $a'$  is supplied which is of a diameter exactly equal to the diameter of the projecting portion  $b$  of

the section B. This said projecting portion  $b$  of the section B has formed therein a plurality of apertures  $b'$ , and located within these apertures and snugly fitting therein are a series of swinging arms D, which said arms are pivoted upon pins  $d$ . These said arms further have projected from their outer end portions spirally-arranged threads  $d'$ , adapted for engagement with the interior thread  $a$  of the section A.

As a means for operating the sections A and B they are provided, respectively, with radially-extended arms  $a^2$  and  $b^2$ .

In the operation of connecting the sections A and B to each other the projecting portion  $b$  of the section B is forced within the section A, and owing to the fact that the threaded portion of the section A does not extend to the outer end thereof the outer ends of the arms D will be forced downwardly until the threaded portions thereof contact with the thread  $a$  of the section A, and the inward pressure upon the section B which is necessary to make said connection between the two threads will press the outer ends of the arms E to the position illustrated in Fig. 1 of the drawings. Then by turning the section B within the section A the coupling may be tightly screwed together, whereby a watertight and durable joint is maintained.

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

1. In a hose-coupling, the combination of two telescopic sections, the section of larger diameter having a thread therein which does not extend to the outer end thereof and the section of smaller diameter having a plurality of swinging arms pivotally attached thereto, said arms containing a spiral thread for engagement with the interior thread of the larger sections, substantially as shown and described.

2. In a hose-coupling, the combination of a cylindrical section having a threaded portion therein which does not extend to the outer end thereof, and a cylindrical section having a plurality of pivotally-attached swinging

arms connected therewith, said arms having threaded portions thereon which extend beyond the diameter of the said cylindrical section carrying them, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in pres-

ence of two witnesses, this 21st day of September, 1896.

HENRY COVERLEY CAMPBELL.

Witnesses:

C. SEDGWICK,

M. G. McCLEAN.