

(No Model.)

F. SCHIMPER & C. ZOLLER.
HOSE COUPLING.

No. 487,893.

Patented Dec. 13, 1892.

Fig: 1.

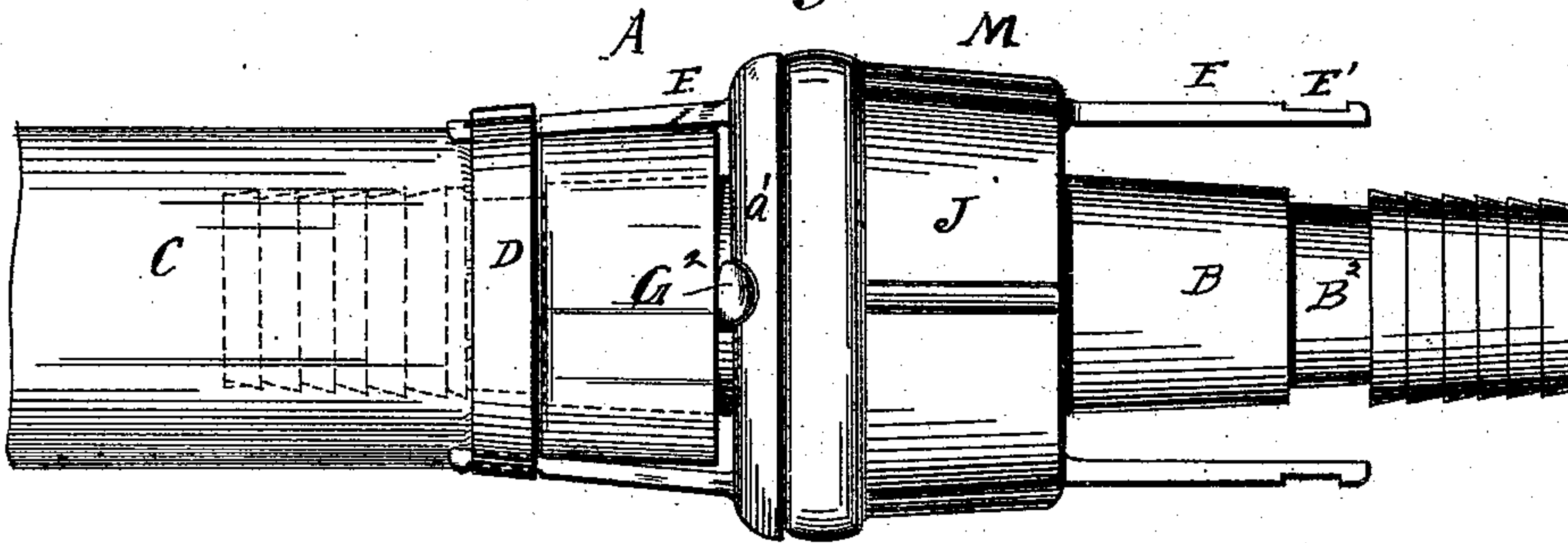


Fig: 2.

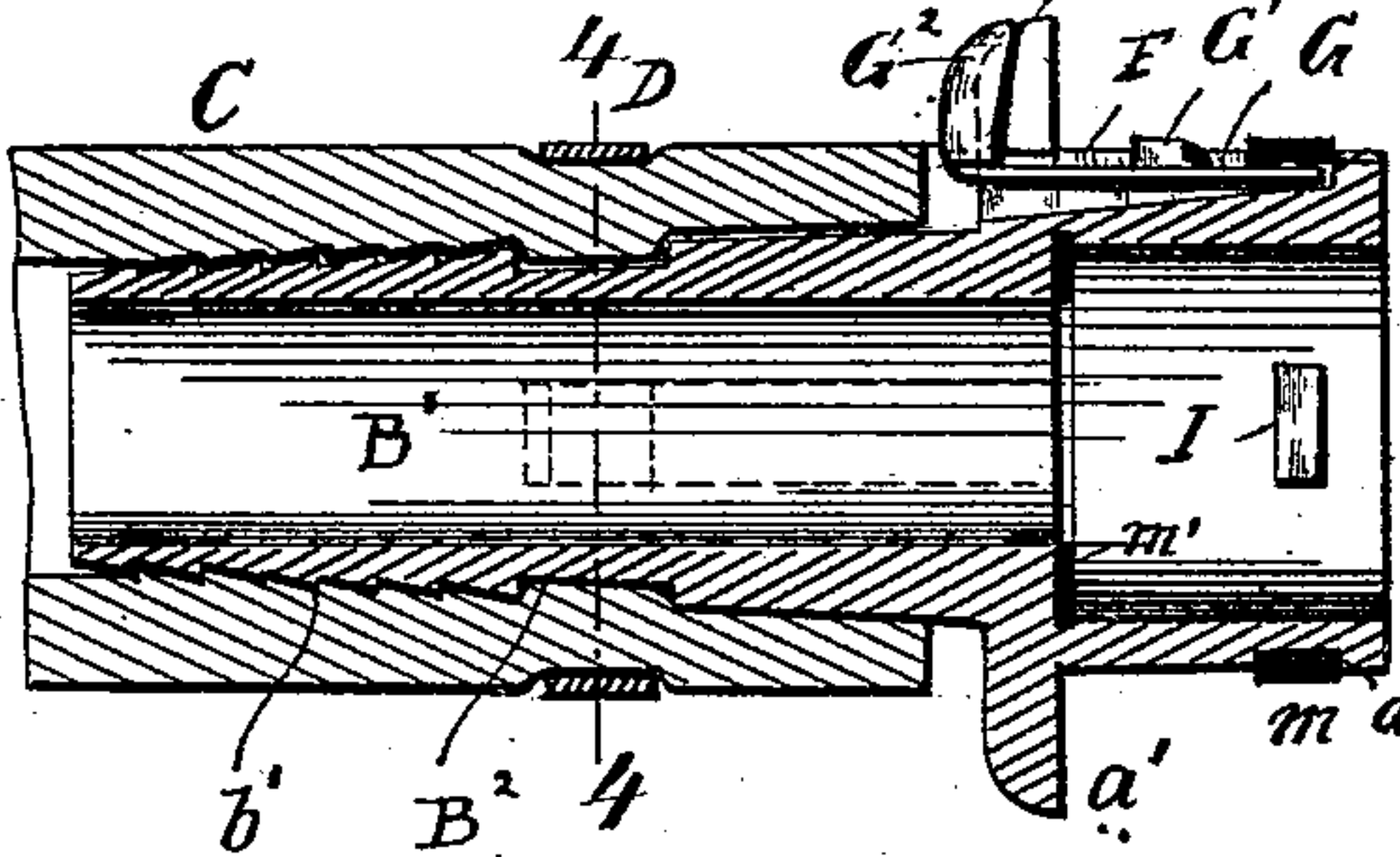


Fig: 3.

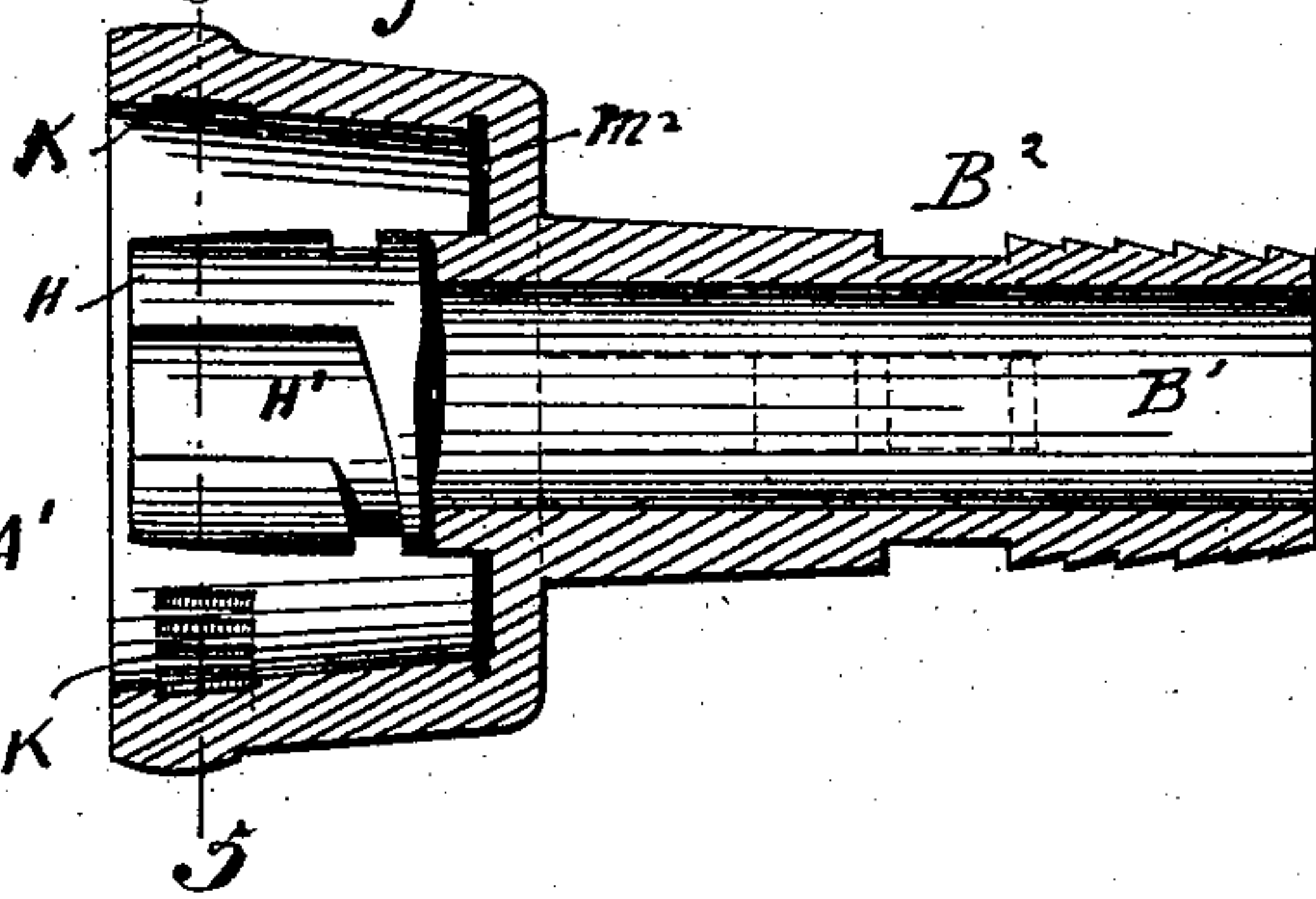


Fig: 4.

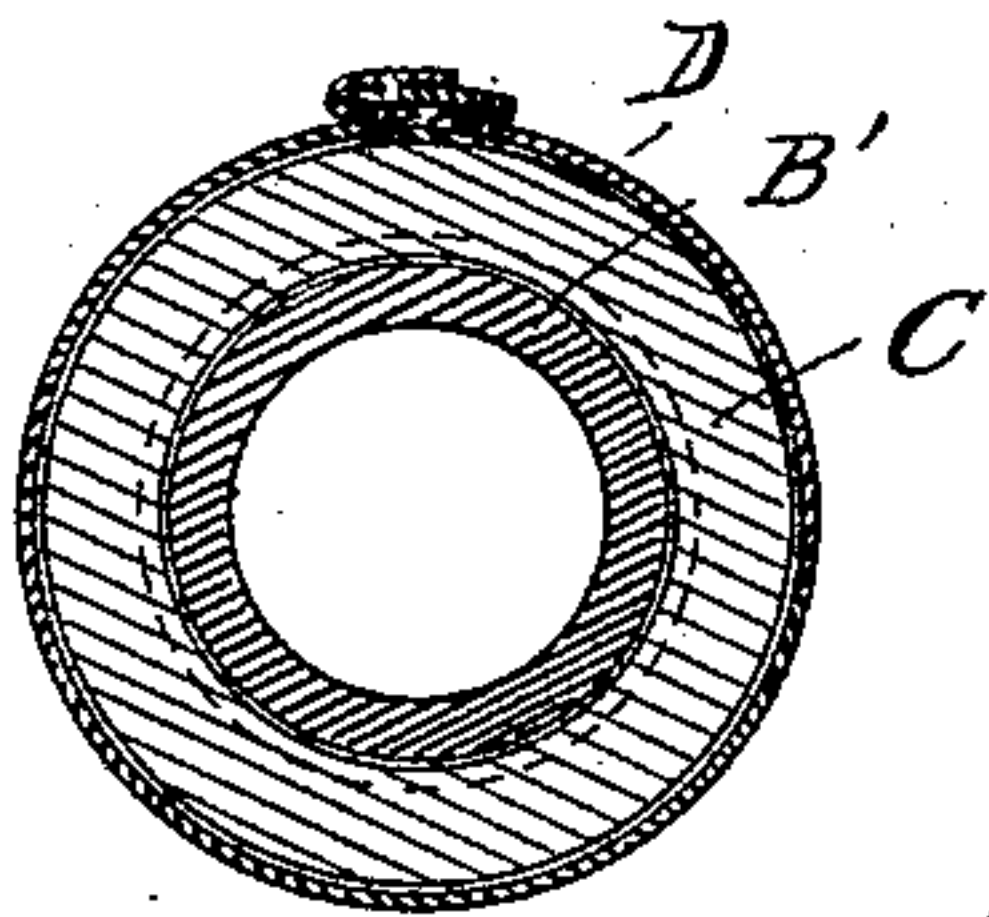


Fig: 5.

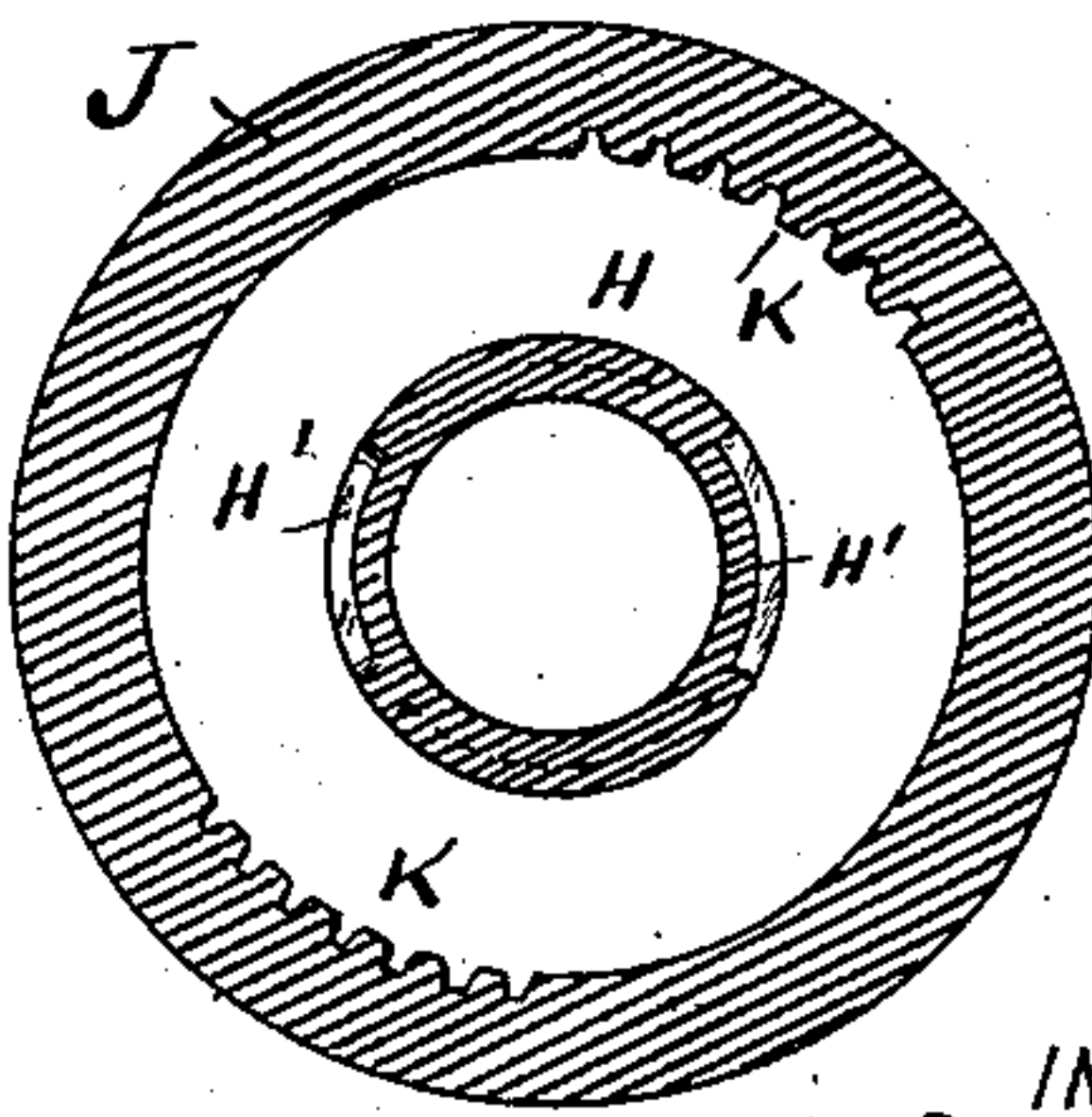
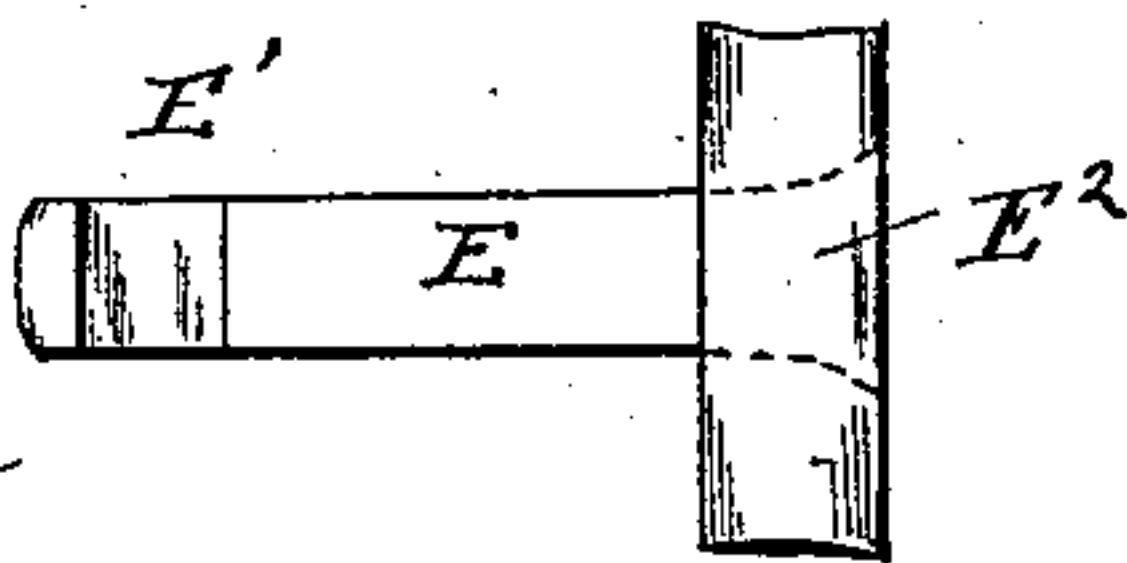


Fig: 6.



WITNESSES:

Charles Schroeder
William D. uehn

INVENTORS:

F. Schimper
BY C. Zoller
Gugel & Payer
ATTORNEYS.

UNITED STATES PATENT OFFICE.

FREDRICK SCHIMPER, OF WEEHAWKEN, NEW JERSEY, AND CHARLES ZOLLER, OF NEW YORK, N. Y.

HOSE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 487,893, dated December 13, 1892.

Application filed July 28, 1892. Serial No. 441,458. (No model.)

To all whom it may concern:

Be it known that we, FREDRICK SCHIMPER, residing at Weehawken, in the county of Hudson and State of New Jersey, and CHARLES ZOLLER, residing in the city, county, and State of New York, both citizens of the United States, have invented certain new and useful Improvements in Hose-Couplings, of which the following is a specification.

10 The object of our invention is to provide a new and improved hose-coupling by means of which sections of hose can be securely, easily, and rapidly united and by which the ends of the hose are held firmly and securely on the
15 coupling-sections.

The invention consists in a hose-coupling formed of a male section provided with lugs and a spring-latch and a female section provided with L-shaped grooves for receiving the
20 lugs and with a socket provided on its surface with notches for receiving the spur on the latch of the male portion.

The invention further consists in the combination, with a male or female coupling-section having a tubular stem adapted to be inserted in a hose, of prongs projecting from said
25 coupling-section and a band surrounding said prongs and the hose.

The invention also consists in the construction and combinations of parts and details, which will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of our improved hose-coupling, showing a hose attached to one section of the
35 same. Fig. 2 is a central longitudinal sectional view of the male section of the hose-coupling. Fig. 3 is a similar view of the female section. Fig. 4 is a transverse sectional view on line 4 4, Fig. 2. Fig. 5 is a transverse sectional view on the line 5 5, Fig. 3; and Fig. 6 is a detail sectional view showing the manner of fastening the prongs.

Similar letters of reference indicate corresponding parts.

45 The hose-coupling is composed of the male section A and the female section B. The male section A consists of a neck A', provided near its end with an external annular groove *a* for receiving the packing-ring or washer *m*, and at its inner end said neck A' is provided with

an annular flange *a'*. From said flange the tubular tapering stem B' projects, which is provided with a series of exterior annular serrations *b'* and with an annular groove B³. 55 The flange *a'* is provided with two diametrically-opposite apertures into which the detachable prongs E are inserted, said prongs being provided at one end with a wedge-shaped head E², that fits the corresponding aperture in the flange *a'*, and at the opposite end they are provided in their outer surface with a notch E'. Said prongs are of such length that their notches E' surround the annular groove B² of the tubular tapering stem B. A
60 metal band D is then passed around the prongs E and the hose C and drawn taut and its ends fastened by doubling them over or in any other suitable way, said band D serving to press the prongs E against the hose
65 and to press part of the hose into the annular groove B² of the tubular tapering stem B, as shown in Fig. 2. Thereby the hose is held firmly and securely to said tapering tubular stem. The neck A' is provided in its outer
70 surface with a longitudinal recess F and the flange *a'* with a corresponding recess F', and in the same a spring-latch G is arranged, which is provided with a tapering prong G' and with the finger-piece G', which finger-
75 piece is arranged in the notch F' in the flange *a'*. From the inner surface of the neck A' of the male coupling-section two lugs I project at diametrically-opposite points. A packing-
80 ring *m'* is placed in the neck A'. 85

The female coupling B is composed of the neck H, provided with two L-shaped grooves H', such as are used in bayonet-locks in its outer surface, the exterior diameter of said neck being such that it can pass into the bore
90 of the male coupling-section. Said neck H is surrounded by a cup-shaped tapering socket J of such diameter that the neck A' of the male section can pass into it, and said socket is provided in its inner surface with two sets
95 of a series of notches K for receiving the prong G' of the spring-latch G. The neck H and the socket J are also provided with a tubular tapering annular serrated and grooved stem B the same as the neck A' of the male coupling, and through the inner end wall of said
100 socket the detachable prongs E are passed in

the same manner as they are passed through the flanges a' of the male section, and the hose is fastened to said female section in the same manner as it is to the male section. A washer m^2 is arranged at the inner end of the socket J.

To lock the two parts of the hose together, it is only necessary to bring the two sections of the coupling together in such a manner that the prongs I on the inner surface of the neck A' can pass into the longitudinal parts of the L-shaped grooves H' of the female coupling as far as possible, and then one or the other is turned axially, so as to cause the lugs I to travel in the transverse parts of the L-shaped grooves H' . The prong G' of the latch G, the side of which is beveled, snaps into one of the notches K in the inner surface of the socket J, and thus locks the parts together, as it prevents turning one or the other of the coupling-sections axially, which movement is necessary for disconnecting the sections. When it is desired to uncouple, the head G^2 of the latch G is pressed in the direction toward the longitudinal axis of the male coupling-section, whereby its prong G' is removed from one of the notches K, thus permitting of turning one or the other of the coupling-sections axially until the prongs I of the male coupling-section are in line with the longitudinal parts of the L-shaped grooves H' of the female coupling-section, when the two sections of the coupling can be drawn from each other.

This coupling is simple in construction, reliable, and can easily be attached to and detached from the hose.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In a hose-coupling, the combination, with a male section composed of a neck having a flange and lugs on the inner surface of said neck, of a spring-latch fastened in an exterior longitudinal groove of the neck and flange, a finger-piece on the free end of said spring-latch, a prong on said latch, a female coupling-section composed of a neck provided with exterior L-shaped grooves, and a socket surrounding said neck, which socket is provided at its inner surface with notches for receiving the prong on the latch, substantially as set forth.

2. In a hose-coupling, the combination, with a coupling-section, of a tubular stem adapted to be inserted into the hose, which tubular stem has an annular groove, prongs projecting from the coupling-section and provided near their ends with notches, and a band passed around the tube and prongs and through the notches of the prongs, substantially as set forth.

3. In a hose-coupling, the combination, with a coupling-section having a tubular stem adapted to be inserted into the end of the hose, of detachable prongs having wedge-shaped heads at one end and a notch in the outer surface in the opposite end, and a band passed around the prongs and hose and passing through the notches in said prongs, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

FREDRICK SCHIMPER.
CHARLES ZOLLER.

Witnesses:

OSCAR F. GUNZ,
CHARLES SCHROEDER.