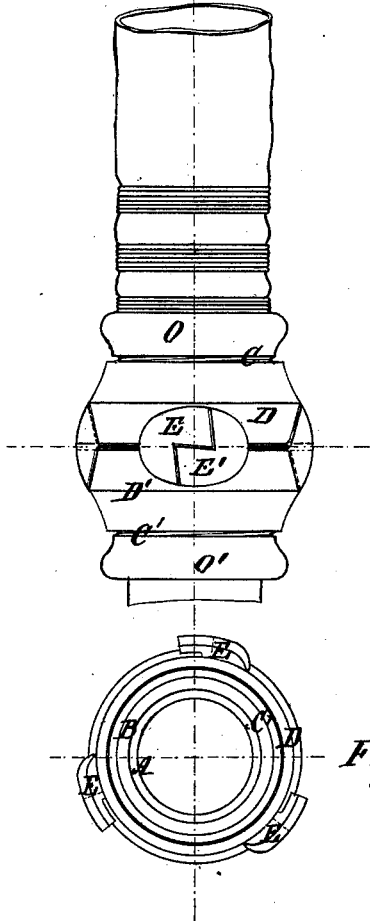


J. GREYHER.  
Hose-Coupling.

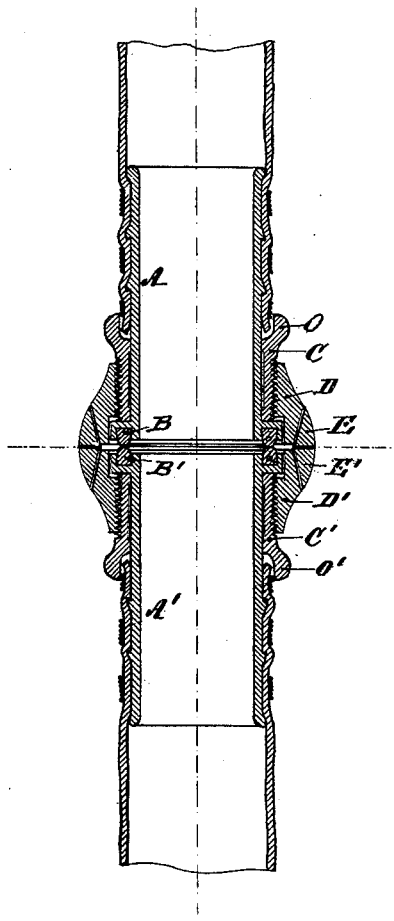
No. 206,172.

Patented July 23, 1878.

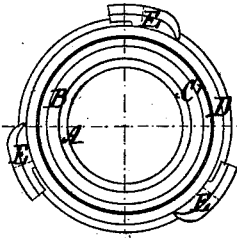
*Fig. I.*



*Fig. II.*



*Fig. III.*



*Witnesses.*

*Charles H. Smith*  
*Abram Van Blarcom*

*Inventor*

*Jacob Grether*  
*per Henry & Roder*  
*Attorney*

# UNITED STATES PATENT OFFICE.

JACOB GREETHER, OF FRIBURG, BADEN, GERMANY.

## IMPROVEMENT IN HOSE-COUPLINGS.

Specification forming part of Letters Patent No. 206,172, dated July 23, 1878; application filed June 5, 1878.

*To all whom it may concern:*

Be it known that I, JACOB GREETHER, of Friburg, Baden, Germany, have invented a new and Improved Coupling for Hose, of which the following is a specification:

All hose-couplings which have hitherto been used are subject to the practical disadvantage that they can only be united in pairs by means of a worm-piece at one end and a screw-cap at the other end, which fits the same, so that the end of every length of hose can only be joined to the corresponding end of another length. This arrangement is very inconvenient in the case of long length of hose, as are frequently obliged to be employed, when each length has to be turned about—a process involving much loss of time and confusion.

A further disadvantage is, that the worms of the screws and the surfaces of contact are, to some extent, too little protected from injury.

These difficulties I have endeavored to obviate by my improved coupling represented in the accompanying drawing, where—

Figure I represents an outside view of a coupling embodying my invention. Fig. II is a longitudinal section of the same, and Fig. III an end view.

A A' are the so-called "spigots," which are attached to each end of the hose, and which are brought into contact with each other. The same are provided with a flange containing a conical groove for the reception of the packing-rings B, which may be made either of leather or india-rubber. On these spigots A A' are fitted loose rings C, provided with suitable screw-threads, and with a projecting part, O O', at their back end, which may be serrated to facilitate the turning of the same. Upon the screw-thread of these rings C C' are fitted the coupling-muffs D D'. These muffs are provided with hooked projecting pieces E E', fitting into each other, and which effect the actual union of the joint.

The setting-rings C C', together with the coupling-muffs D D', are capable of being turned around, when the coupling is disconnected, and may be shifted backward and forward some little distance by turning the latter.

The coupling acts in the following manner: When two lengths of hose are to be united, one end of each is seized in the hand at the

serrated projecting part O O' of the setting-ring, and the coupling-muffs D D' pressed together, so that the hook-like projecting parts E E' fit into each other, and then the setting-rings C C' are turned in opposite directions with both hands, which completes the union. By means of this turning the hook-like projections E E' are made to gripe each other, and by the continuation of the motion the coupling is fixed to the setting-rings C C' and the packing-rings B B' are pressed against each other.

When the joint is to be disconnected the setting-rings are again taken hold of, a turn of both hands in the opposite direction is given, and the ends of the hose come apart.

The advantages of this coupling are, that the coupling ends of the lengths of hose are at both ends alike, so that either end of a length of hose may be connected indifferently with either end of any other length of hose.

The uniting and disconnecting of any length of hose with another require much less time and can be effected with much less practical dexterity.

The worms or threads of the coupling-screws are protected, and are not so easily liable to injury.

The packing, which consists of caoutchouc or leather rings, may easily and without any peculiar manipulation be taken out and removed, and these surfaces of contact are not so liable to be interfered with by the intrusion of sand or other injury as is the case with metal surfaces, which close by impact or fit into each other, and which, in such cases, are not easily rendered tight-fitting.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the piece or spigot A, with grooves for the reception of india-rubber or leather rings B in its end, the sliding ring C, with screw-thread at one end and projecting part O at its other end, and the coupling-muff D, with hook-like projecting parts E, with the end of a hose, forming one-half of a coupling, and arranged to operate with similar parts at the end of another hose, substantially in the manner and for the purpose herein described.

JACOB GREETHER.

Witnesses:

RUDOLPH POLLMAN,  
GOSWIN SCHELL.