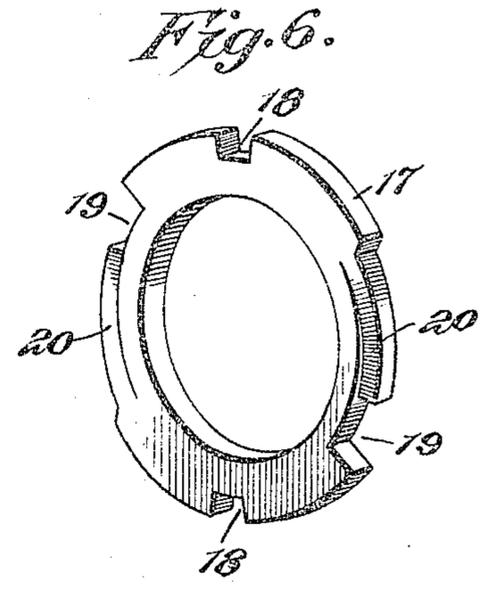
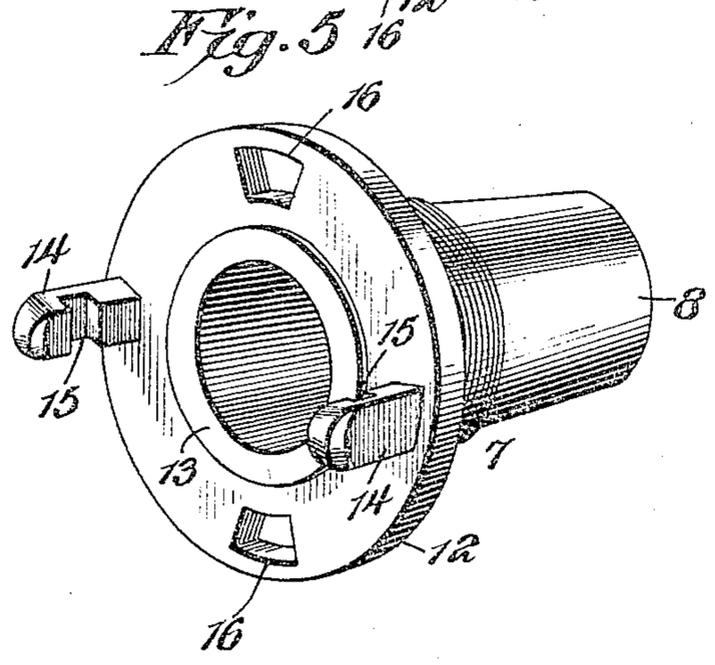
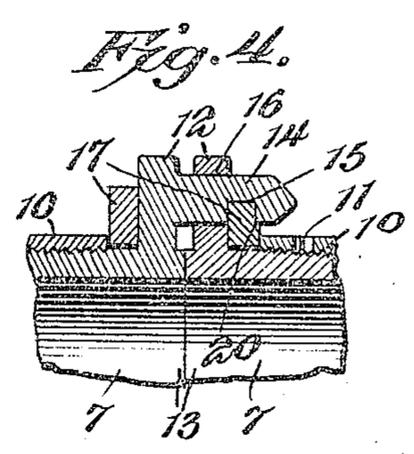
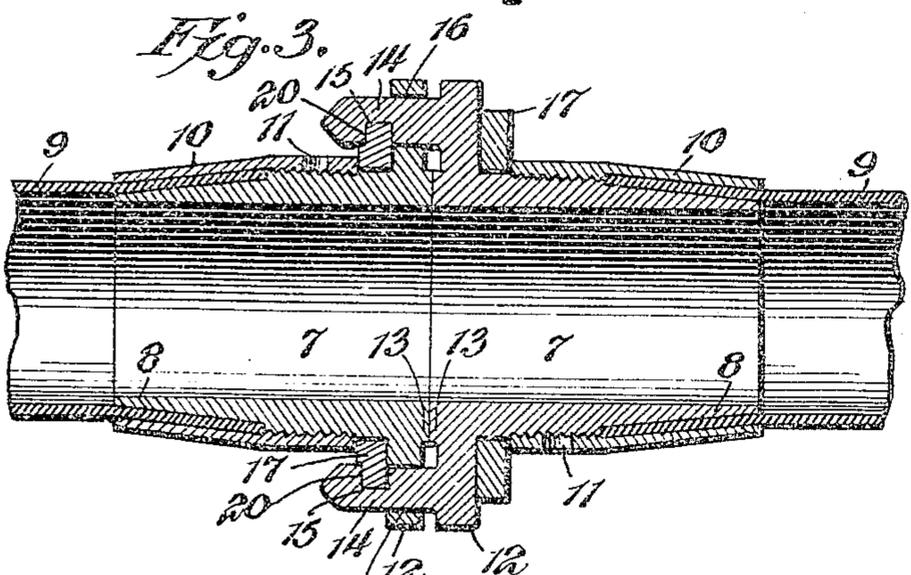
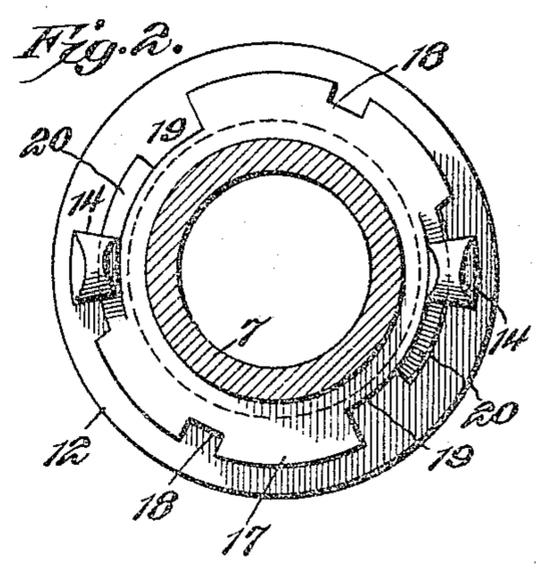
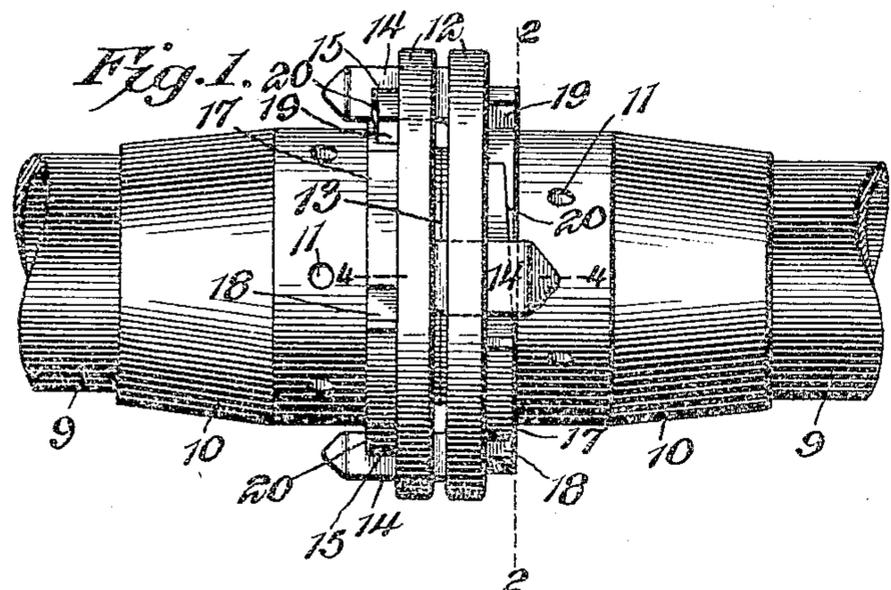


No. 792,417.

PATENTED JUNE 13, 1905.

W. S. HOUSER.
HOSE OR PIPE COUPLING.
APPLICATION FILED MAR. 24, 1904.



Winfield S. Houser, Inventor,

By *B. G. Siggers*

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Witnesses
Howard W. Carr
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UNITED STATES PATENT OFFICE.

WINFIELD S. HOUSER, OF DUBOIS, PENNSYLVANIA.

HOSE OR PIPE COUPLING.

SPECIFICATION forming part of Letters Patent No. 792,417, dated June 13, 1905.

Application filed March 24, 1904. Serial No. 199,770.

To all whom it may concern:

Be it known that I, WINFIELD S. HOUSER, a citizen of the United States, residing at Dubois, in the county of Clearfield and State of Pennsylvania, have invented a new and useful Hose or Pipe Coupling, of which the following is a specification.

This invention relates more particularly to improvements in that class of couplings employed for connecting lengths or sections of hose; and the prime object is to provide a simple novel structure of the quick-action type—namely, one that will permit the easy, quick, and tight coupling of both sections and as readily permit the same being uncoupled.

Another object is to construct a coupling so that the members thereof are duplicates, and consequently the sections of hose may be expeditiously coupled without the necessity of mating the coupling members thereof.

The preferred embodiment is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of the improved coupling with the elements connected. Fig. 2 is a cross-sectional view through the same on the line 2 2 of Fig. 1. Fig. 3 is a longitudinal sectional view. Fig. 4 is a detail longitudinal sectional view on the line 4 4 of Fig. 1. Fig. 5 is a detail perspective view of one of the coupling members. Fig. 6 is a detail perspective view of one of the locking-rings employed.

Similar reference-numerals indicate corresponding parts in all the figures of the drawings.

In the structure illustrated a pair of members are employed, which members are duplicates. Each member comprises a tubular shell 7, having a tapered outer end 8, upon which the end of the hose-section 9 is adapted to be slipped. A retaining-sleeve 10, also having a tapered outer end, is arranged to clamp over the end of the hose-section placed upon the portion 8 of the shell and has its inner end interiorly threaded and screwed upon the shell, as illustrated in Fig. 3, said sleeve being preferably provided with suitable openings 11 to receive a wrench or turning-tool. The inner end of the shell is provided with an

outstanding annular flange 12, located a slight distance from the inner edge of the shell, so as to leave a boss 13. The flange carries on diametrically opposite sides overhanging or forwardly-projecting portions in the form of hooks 14, having seats 15 in their inner sides. Midway between these hooks the flanges are provided with sockets 16 therethrough, which sockets are of substantially the same cross-sectional contour as that of the hooks. Revolvably mounted on each shell between the inner end of the clamping-sleeve 10 and the flange 12 is a locking-ring 17, provided with peripheral seats 18, adapted to receive a wrench or other tool and also having sockets 19, which are adapted to align with the sockets 16 of the flange 12. Inclined shoulders 20 lead from the sockets 19. The coupling members and the elements thereof are so arranged that when placed together bosses 13 will abut, as shown, and the hooks 14 of one will pass through the sockets 16 of the other, the sockets 19 of the locking-rings having first been aligned with the sockets 16. The seats 15 of the hooks will thereupon be located in line with the inclined shoulders 20 of said locking-rings, and it will therefore be evident that when the rings are turned the members will not only be locked against disassociation, but will be drawn tightly together by the hooks riding outwardly upon the said inclined shoulders. This tightening and locking action may under ordinary conditions be secured by hand; but it will be apparent that by operating the rings with a suitable wrench a much more secure lock and tighter joint can be obtained.

It will be evident that lengths of hose provided with these coupling members can be quickly and efficiently connected and that as the members are all duplicates any ends can be connected, thus avoiding the necessity of mating certain coupling members.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction

may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

In a coupling of the class described, the combination with members to be coupled, one of said members comprising a shell having a retaining-flange at its inner end, a tapering outer end and an intermediate threaded portion, of a locking-ring rotatably mounted on the shell in rear of the flange and being removable over the threaded portion and tapered end, said ring having a socket in its outer margin that extends entirely through the ring, and being furthermore provided on its rear face with an inclined shoulder extending from the socket, the other of said members having a forwardly-projecting hook that passes through the ring-socket and is adapted to bear

against the inclined shoulder of the rear face of the ring, said hook terminating short of the inner edge of the ring, and a tapered tube-clamping sleeve surrounding the outer portion of the shell having the said flange and having its inner end screwed upon the threaded portion of said shell, said sleeve having its inner end edge located contiguous to the rear face of the ring and inside the end of the hook, the said inner end edge of said sleeve constituting a shoulder that prevents the removal of said ring over the tapered end of the shell.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WINFIELD S. HOUSER.

Witnesses:

W. S. DE HAAS,
JOHN S. SPRIES.