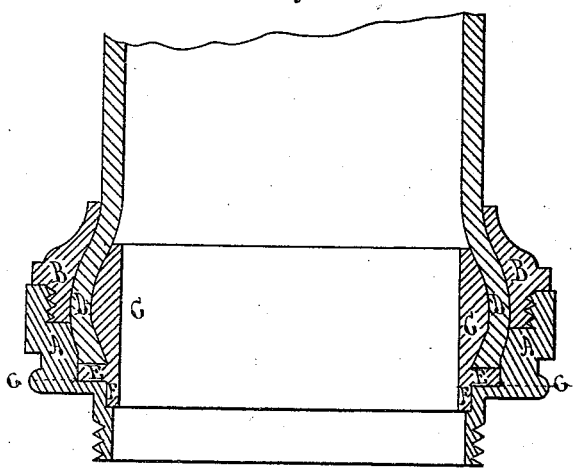
S. H. LORING.

HOSE-COUPLING.

No. 184,639. Patented Nov. 21, 1876

Fig. 1



Witnesses.
Wm. S. Brown
Charles E. Ratt

Inventor
Silas H. Loring
by A. H. Garland Batty

UNITED STATES PATENT OFFICE.

SILAS H. LORING, OF LAWRENCE, MASSACHUSETTS.

IMPROVEMENT IN HOSE-COUPLINGS.

Specification forming part of Letters Patent No. **184,639**, dated November 21, 1876; application filed February 18, 1876.

To all whom it may concern:

Be it known that I, SILAS H. LORING, of Lawrence, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Hose-Couplings, of which the following is a specification:

My improvement relates to that kind of coupling in which the hose is attached to the coupling by means of a detached inner ring and an outer binding-ring; and consists in providing a flange on the inner detached ring, fitting into a corresponding surface of the coupling-section, so that when the hose is clamped the inner ring still maintains its loose quality, and may be taken out again as soon as the outer sections are unscrewed, the object of my invention being to provide a water-tight joint on a loose or removable inner ring, so that no water can come in contact with the end of the hose, thereby disintegrating and loosening the end of the hose.

As heretofore made, although a flange has been put on the inner ring, yet it has also been made to attach the ring to the coupling, and it is found that the great strain on the hose, caused by the pressure of the water, causes the hose to yield and open a space between the flange and the shoulder of the outer ring, which readily admits water, and soon causes the end of the hose to become disintegrated. In order to avoid this I put a flange on my detached inner ring, fitting against a shoulder in the coupling-section of the outer binding-ring, so as to leave the inner ring detached.

The outer rim of the flange of the detached inner ring fits into a straight cylindrical surface, the whole joint being made water-tight, so that when the pressure of the water causes the hose to yield and open a space between the flange and shoulder, the rim of the flange being fitted into the cylindrical surface, and yielding with the detached ring, prevents any water from getting to the hose, because it maintains its position with relation to the latter.

In the drawing, Figure 1 represents a longitudinal section of a hose-coupling provided with my improvement.

A is the coupling-section, which is screwed onto the binding-ring B in the ordinary manner. C is the detached inner ring, and D the hose. On the end of the detached inner ring I put a flange, F F, which is made to fit water-tight into a corresponding cylindrical surface in the coupling-section of the outer ring, the end of this flange abutting against a shoulder in the coupling-section. This flange is made straight on its outer surface, so that when the parts are screwed together the inner ring will not be jammed or wedged, and the joint will also remain tight when the ring yields with the hose.

Instead of the flange F F, the flange E E may be put on the inner ring. The outer rim of this flange fits into a straight cylindrical surface in the coupling-section, and also forms a tight joint when the hose yields.

While the flange E or F, upon the detached inner ring C is fitted substantially water-tight against the outer ring, it is not wedged or driven in tight enough to attach or bind the inner ring to the outer part A, as such a construction would destroy the valuable yielding quality of the inner ring, and its consequent gripe upon the end of the hose, my invention being intended to preserve this quality of the inner ring intact.

When the pressure of the water in the hose causes the hose to yield and open a space between the flange of the detached inner ring C and the shoulder of the coupling-section A of the outer ring, the rim of the flange E E or the flange F F being fitted water-tight to the surface of the coupling-section, no water can come in contact with the end of the hose, and it is therefore preserved intact, and lasts for a much longer time.

What I claim as new and of my invention is—

In a hose-coupling, the loose or removable inner ring, having a flange, F, fitting substantially water-tight into its bearing-surface in the coupling-section of the outer binding-ring, substantially as described.

SILAS H. LORING.

Witnesses:

WM. H. LORING,

C. F. SPOFFORD.