W. H. BURDEN & B. J. PLEASANCE.

HOSE-COUPLINGS.

No. 194,575. Patented Aug. 28, 1877.

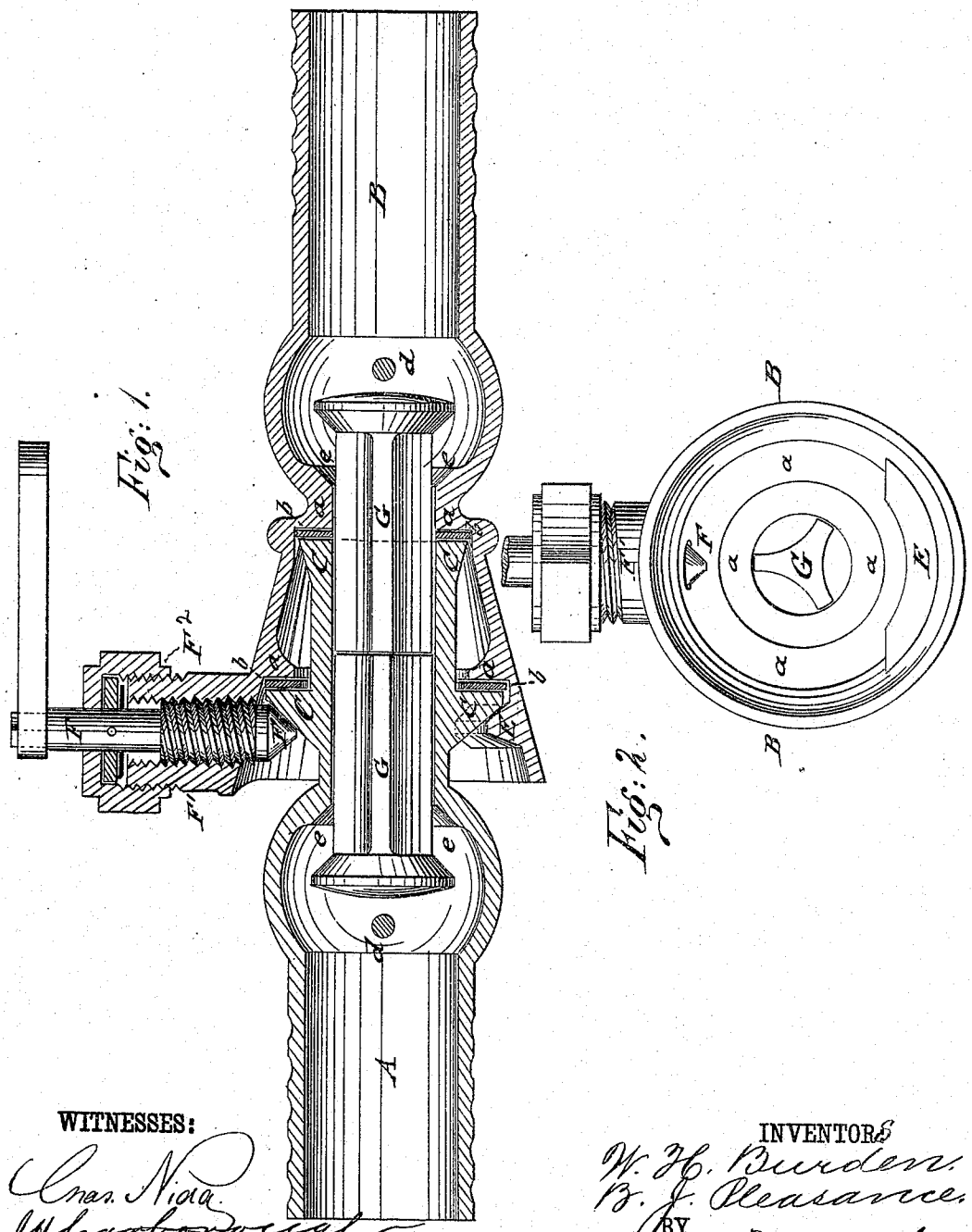


Fig. 1.

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. BURDEN AND BENJAMIN J. PLEASANCE, OF CLEVELAND, OHIO.

IMPROVEMENT IN HOSE-COUPLINGS.

Specification forming part of Letters Patent No. **194,575**, dated August 28, 1877; application filed June 11, 1877.

To all whom it may concern:

Be it known that we, WILLIAM H. BURDEN and BENJAMIN J. PLEASANCE, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Hose-Coupling, of which the following is a specification:

In the accompanying drawings, Figure 1 represents a vertical longitudinal section of our improved hose-coupling; and Fig. 2 an end view of the female part of the coupling.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

In the drawing, A represents the male, and B the female, portion of our improved hose-coupling. The female portion B is provided with interior shoulders *a a*, against which annular shoulders C C, of corresponding shape of the male portion A, are pressed, so as to bear tightly on interposed packing-rings *b b*, of rubber or other material, and produce thereby a double packing-joint between the female and male portions of the coupling.

The outer shoulders C of the male portion A is of triangular cross-section, the inner side being square to compress the packing-ring *b*, the outer side being inclined to form contact with a wedge-shaped bottom flange, E, of the female portion that extends to certain length at the inside of the same, and with the conically-pointed end of a locking-screw, F, that turns in a tubular and threaded top part F^1 of the female portion B, the tubular top being closed tightly by a washer and packing-ring placed around shank of screw, and by a top nut, F^2.

The locking-screw F has a quick thread, so as to bear with one turn or less down on the inclined side of the annular shoulder C of the male portion, and carry the latter forward by the joint action of the bottom flange and of the conical end of the screw against the shoulders of the female portion, producing thus an intimate and tightly-closing joint.

Each portion of the coupling is provided with a sliding three-wing valve, G, of which the one in the male part is to be forced open and held in this position by the valve-stem of the female portion, admitting the passage of steam or water when the parts are uncoupled. By uncoupling the parts the pressure of the water or steam would close the parts automatically.

The valves G stand in opposite directions to each other, and slide against cross-pins *d* that retain the valves in one direction, the conical seats *e* retaining them when closed, they closing when the parts are uncoupled by their own weight or pressure without allowing waste of water or steam, and providing thus a very useful automatic valve action in connection with the coupling.

The locking-screw is worked by a lever or key placed on the square head, which may be attached to a chain when the coupling is used for air-brakes, or steam or water connection for railroad-cars, for the purpose of automatically uncoupling the coupling by turning the screw in case the cars get uncoupled, preventing thus the tearing or injuring of the connecting-hose while admitting the quick and convenient recoupling on turning the screw in opposite direction.

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

A hose-coupling whose parts A B are provided with corresponding shoulders *a a* C C, and the packing-rings *b*, the part B being provided with a flange, E, and with a locking device, F F^1, as and for the purpose specified.

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Witnesses:
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