

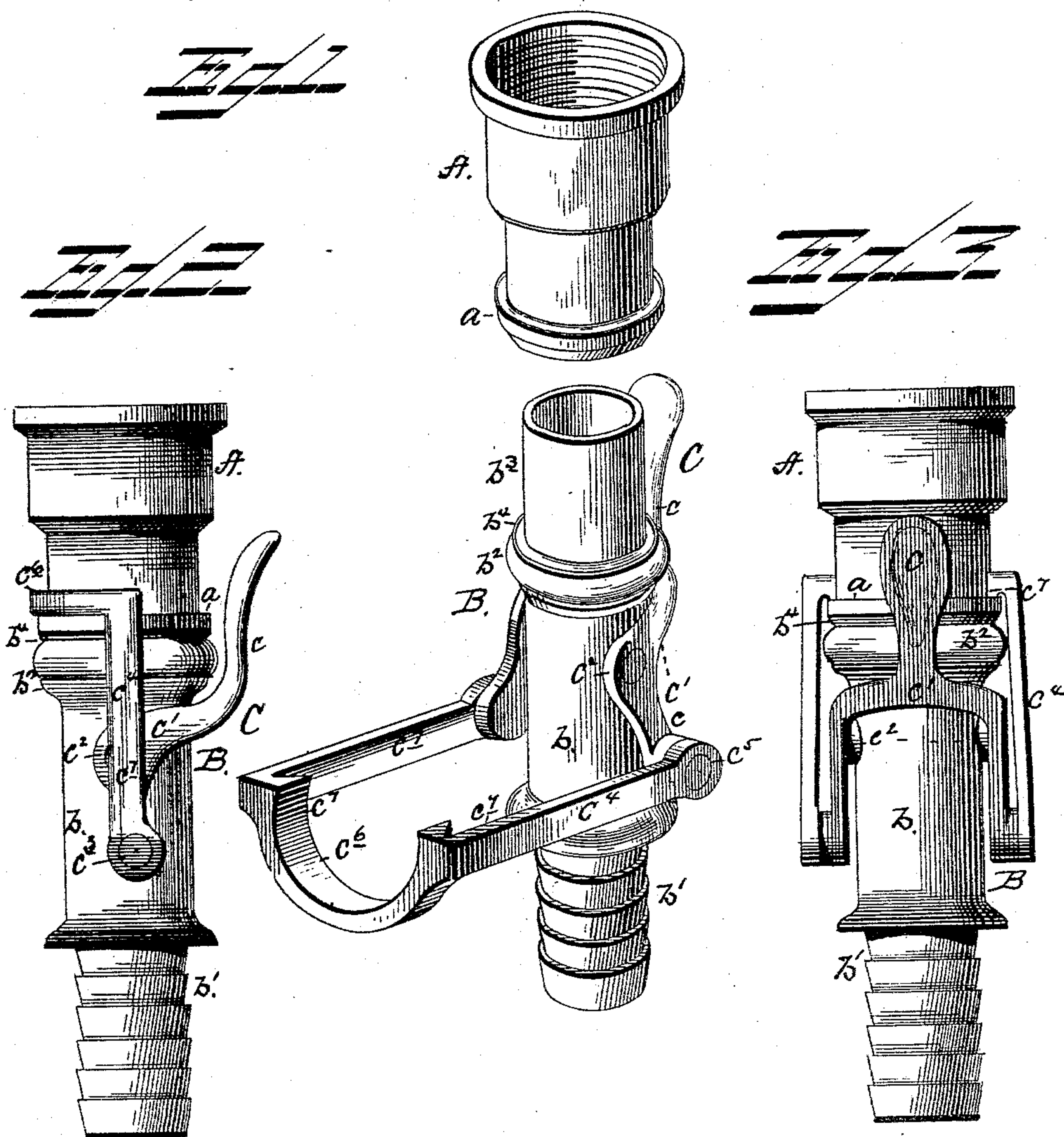
(No Model.)

C. A. MAY & T. SIDDALL.

PIPE COUPLING.

No. 325,686.

Patented Sept. 8, 1885.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES A. MAY AND THOMAS SIDDALL, OF TRENTON, NEW JERSEY.

PIPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 325,686, dated September 8, 1885.

Application filed July 20, 1885. (No model.)

To all whom it may concern:

Be it known that we, CHARLES A. MAY and THOMAS SIDDALL, citizens of the United States of America, residing at Trenton, in the county of Mercer, in the State of New Jersey, have invented a certain new and useful Improvement in Pipe-Couplings, of which the following is a specification.

Our invention relates to improvements in that class of pipe-couplings intended to detachably connect or unite the approaching ends of two sections of hose, pipes, and similar conducting means; and the object is to provide a device for the purpose intended by which the connection or attachment of the sections of tubes may be speedily effected, and by which separation or disconnection may as readily be attained.

We effect the object of our invention by means of the devices or appliances illustrated in the accompanying drawings, wherein Figure 1 is a perspective view of the coupling-section with the lever and clamping-stirrup. Fig. 2 is a side view of my device in operative connection. Fig. 3 is a top view of the device.

In the drawings similar parts are identified by the same letters of reference.

The letter A designates one section of the coupling. This consists of a metallic ferrule provided with interior screw-threads in the end which connects with the section of pipe to be attached thereto. About the free end of this section or ferrule is formed an exterior annular collar, *a*, the rear wall of which is preferably inclined from the upper edge toward the front or free end of the section, for the purpose of receiving and the better to retain the jaw of the clamping yoke or stirrup, as hereinafter stated. This construction dispenses with the side lugs usually projected from the sides of the section to engage with the pending arms or projections on the clamping-yoke used in older constructions, and adapts the sections to be secured in coupling engagement, irrespective of its particular position in relation to the yoke, since the yoke can engage the collar at any part of its circumference.

The letter B designates the coupling-section, consisting of the body *b*, formed with a shouldered extension, *b'*, over which the pipe or hose is slipped and about which it is secured, and having formed thereon, toward the free

end, an annular shoulder or packing-seat, *b²*, from the base of which the section is extended, as at *b³*, to project within the end of section A, and thus strengthen the connection. On the forward extension of section B is fitted a packing-ring, *b⁴*, which sets against the annular collar or seat *b²*, and serves to seal the connection between the two sections when clamped together.

The letter C designates a lever, consisting of the handle *c* and yoke *c'*, pivoted to pintles *c²*, projected from the coupling-section and terminating in short lever-arms *c³*, adapted to be pivotally attached to the arms of the coupling-clamp *c⁴*, as shown. The coupling-clamp *c⁴* consists of a circular yoke or stirrup, *c⁶*, which extends over about one-half of the circumference of the pipe, and is formed with a turned-in wedge-shaped lip, *c⁷*, adapted to set in the groove or inclined wall of the annular collar on the end of the section A. From the ends of this circular yoke or stirrup *c⁶* are extended the arms *c⁷*, having perforations in their free ends, through which and the short arms of the lever are passed pivot fastenings or rivets, as shown at *c⁵*, as aforesaid.

The operation of coupling may be stated as follows: The handle of the coupling lever being lifted up, the coupling-clamp is released and moved away from the end of the pipe to which the section is attached. The section A is then placed in connection with the coupling-section B. The yoke of the coupling-clamp is then brought down in the pipe behind the annular collar of the end of the pipe, and the handle of the lever pressed down until it reaches a position substantially as seen in Fig. 2 of the drawings, which action draws the lip of the coupling-clamp within its seat against the collar on the section A, and draws the two sections against the packing-ring, and holds them firmly and tightly coupled. The parts may be uncoupled by simply lifting the lever, which action releases the coupling-clamp, and then the parts may be drawn asunder.

We are aware that pipe-couplings have been made with levers and yokes to draw the sections together and hold them in union, and we make no claim, broadly, to such devices; but

What we do claim, and desire to secure by Letters Patent, is—

In combination with the section A, having

the exterior annular end collar, a , formed with
an inclined rear wall, and the coupling-section
B, formed with an annular collar, b^2 , and pro-
jecting end b^3 , having packing-ring b^4 , of the
5 yoked lever C, pivoted to pintles c^2 on the sec-
tion B, and having short lever-arms c^3 and a
coupling-clamp, c^4 , pivotally secured to the
short arms of the lever, and formed with the
circular yoke or stirrup c^6 , having a turned-in
10 wedge-shape lip, c^7 , to set against the inclined
rear wall of the ring on the end of the pipe-

section, substantially as described, and for the
purpose stated.

In testimony whereof we have hereunto
signed our names in the presence of two at- 15
testing witnesses.

CHARLES A. MAY.
THOMAS SIDDALL.

Attest:

W. E. HOWELL,
K. S. MAY.