

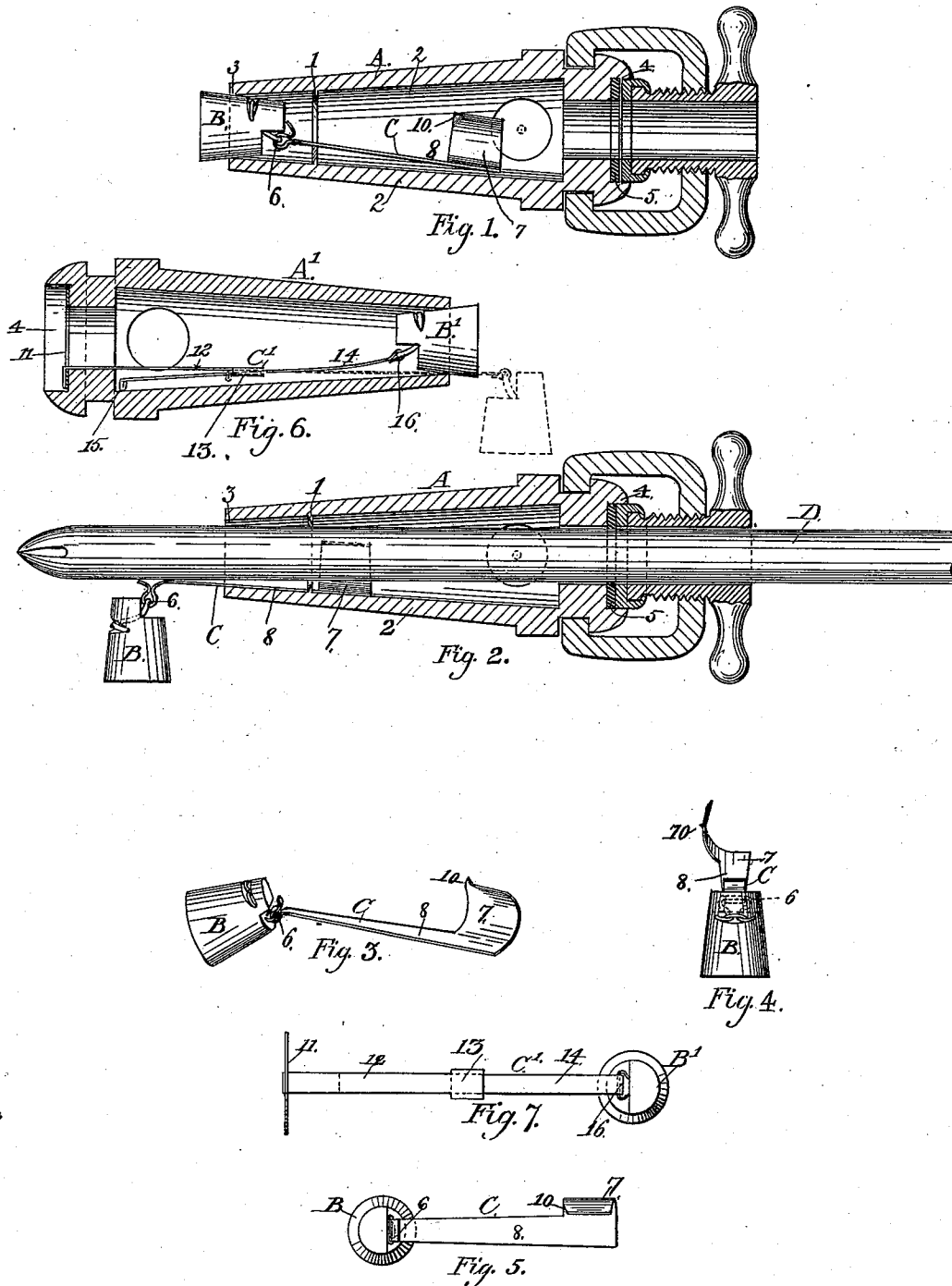
(No Model.)

H. E. BAILEY.

APPARATUS FOR DRAWING LIQUIDS FROM BARRELS.

No. 504,512.

Patented Sept. 5, 1893.



Witnesses:

D. B. Brown.
George Henry Ball

Inventor:

Henry E. Bailey,
by William H. Low,
Attorney.

UNITED STATES PATENT OFFICE.

HENRY E. BAILEY, OF ALBANY, NEW YORK, ASSIGNOR OF TWO-THIRDS TO
RICHARD O. BASSETT AND CHARLES H. BAILEY, OF SAME PLACE.

APPARATUS FOR DRAWING LIQUIDS FROM BARRELS.

SPECIFICATION forming part of Letters Patent No. 504,512, dated September 5, 1893.

Application filed March 11, 1893. Serial No. 465,547. (No model.)

To all whom it may concern:

Be it known that I, HENRY E. BAILEY, of the city and county of Albany, in the State of New York, have invented new and useful
5 Improvements in Apparatus for Drawing Liquids from Barrels and other Vessels, of which the following is a specification.

My invention relates to improvements in detachable sleeve-taps that are insertible in
10 barrels, and other vessels containing liquids, for the purpose of drawing the liquids therefrom; said taps being usually employed in that class of apparatus in which compressed-air is used as a medium for ejecting the liquid
15 from the vessel.

The object of my invention is to provide means for attaching the stopper—commonly used for a closure for the inner end of the sleeve-tap—permanently, or practically a per-
20 manent attachment, so as to avoid the necessity for leaving said stopper within the barrel after the sleeve-tap is removed therefrom. I attain this object by the means illustrated in the accompanying drawings, which are
25 herein referred to and form part of this specification.

In said drawings, Figure 1 is a longitudinal section of a sleeve-tap provided with my improvement, showing the stopper in place for
30 forming a closure for the inner end of said sleeve-tap. Fig. 2 is a like section, showing the stopper displaced from the bore of the sleeve-tap, but still connected to the latter. Figs. 3, 4, and 5 are respectively a perspective view, an end elevation, and a plan view
35 of the stopper and stopper-carrier detached from the sleeve-tap. Fig. 6 is a longitudinal section of a sleeve-tap, showing a modified form of stopper-carrier; and Fig. 7 is a detached plan view of said modified form of
40 stopper-carrier.

As commonly constructed sleeve-taps are provided with a separable stopper which is only used as a temporary closure for the inner
45 end of the sleeve-tap while the latter is being driven into the barrel; said stopper—being displaced from the bore of the sleeve-tap, by forcing the discharge-pipe into place through the latter—remaining within the bar-
50 rel after the sleeve-tap is removed, wherein it often causes considerable inconvenience.

My stopper, while it forms a temporary closure for the inner end of the bore of the sleeve-tap and is removed from the bore of the latter in the manner above described, is practically
55 permanently attached to the sleeve-tap and is removed therewith from a barrel.

As represented in the drawings, A designates a sleeve-tap which only differs from those of an old and well-known form by hav-
60 ing a slight circumferential rib, 1, formed in its bore near the inner end of the same; the shank 2 of said sleeve-tap is made tapering to allow it to form a fit in holes of different diameter; the bore of the shank preferably
65 has a tapering form which substantially conforms to the exterior of said shank. Ordinarily the bore of said shank can be left sufficiently rough from using sea-sand cores, in the operation of casting, to dispense with the
70 necessity of having the rib 1 formed in the bore of the shank. Preferably the bore of the inner end of sleeve-tap, as at 3, is bored or reamed out to form a seat for a stopper therein. The outer end of said sleeve-tap is
75 provided with a stuffing-box, 4, for containing a compressible packing, 5, which forms a tight joint around a removable discharge-pipe that is inserted through the sleeve-tap.

B designates the stopper for the bore of the
80 inner end of the sleeve-tap, that is to say the end of the latter that enters into the barrel. Said stopper is preferably made of india-rubber or other material having sufficient elasticity to allow it to be compressed into the
85 bore of the sleeve-tap.

The stopper B is hinged, as at 6, to a stopper-holder C, which is fitted to slide loosely in the bore of the sleeve-tap. As shown in
90 Figs. 1 to 5, said stopper holder consists of a concave spring-plate, 7, which can be sprung to allow it to enter the bore of the sleeve-tap A beyond the rib 1 in said bore, so that the
latter will, by engaging with the adjacent end of the spring-plate, prevent the accidental
95 displacement of the holder from the bore of the sleeve-tap. An arm, 8, is formed on the spring-plate 7 to project toward the inner end of the sleeve-tap A, and to the end of this arm the stopper B is hinged, as at 6, so as to
100 allow said stopper to be deflected sidewise out of the path of the removable discharge-pipe

above referred to. Preferably the corner of the spring-plate 7 is bent to form a tooth, 10, that will insure the taking of the spring-plate 7 against the rib 1, for the purpose of arresting the movement of the stopper-holder C at that point; ordinarily, when the bore of the sleeve-tap A has a rough surface, the tooth 10 will engage with the rough surface of the bore sufficiently to prevent an accidental displacement of the stopper-holder C from the bore of the sleeve-tap.

In the modified form of the stopper-holder shown in Figs. 6 and 7, in which it is designated by C', said stopper-holder consists of a ring, 11, which fits the inner end of the stuffing-box 4 and allows the removable discharge-pipe to pass through it into the bore of the sleeve-tap A'. An arm, 12, is attached to said ring and extends into the bore of the sleeve-tap. Said ring and arm form a stationary portion of said stopper-holder, which prevents the latter from being accidentally displaced from the sleeve-tap. The inner end of the arm 12 is provided with lateral lugs, 13, which are folded over the body of the arm to form a loop through which a sliding-bar, 14, is fitted to slide loosely. The end of the latter is provided with a stop, 15, which prevents the sliding-bar from being drawn out of said loop; the opposite end of said sliding-bar is provided with a joint, 16, by which a stopper, B' is hinged to the sliding-bar in such manner that said stopper can be deflected, as indicated by dotted lines in Fig. 6, to clear from the path of the removable discharge-pipe.

D designates the removable discharge-pipe which is above referred to, and which is fitted to pass longitudinally through the sleeve-taps hereinbefore described; the packing 5 forms a water-tight joint around said discharge-pipe and prevents a leakage of the liquid from the barrel from occurring at that point. The discharge-pipe D is designed to be coupled to another pipe (not shown in the drawings, but common to this class of devices,) whereby the liquid can be conveyed to any point where it is required to be delivered.

My invention is operated in the following manner: It being understood that the barrel to which my device is to be applied is provided with tap-hole stoppered with a cork in the usual manner, the sleeve-tap—A or A'—with the end of its bore closed by a stopper—B or B'—in the manner shown in Figs. 1 and 6, is driven into the tap-hole of the barrel, and thereby the cork which has formed a closure for the tap-hole is driven into the interior of the barrel; during this operation the stopper in the end of the sleeve-tap forms a closure for the bore of the latter and prevents the escape of the liquid therethrough until

arrangements are completed for inserting the discharge-pipe D into the bore of the sleeve-tap; said discharge-pipe is usually provided with a stop-cock, to prevent a discharge of liquid therethrough until a connection of all the discharge-pipes is fully completed. By pushing the discharge-pipe D entirely through the bore of the sleeve-tap the stopper will be forced from the bore of the sleeve-tap and will be deflected, by bending the flexible joint of the stopper-holder, from the path of the discharge-pipe D.

In the operation of displacing the stopper B from the inner end of the sleeve tap A, the stopper-holder C will be pushed inwardly toward the inner end of said sleeve-tap until said stopper is entirely clear from the bore of the sleeve-tap. In accomplishing this the stopper B will be turned to one side, clear from the path of the discharge-pipe D, but said stopper-holder will remain in the bore of the sleeve-tap and retain the stopper in position to be restored to its place in the bore of said sleeve-tap as soon as the latter is removed from the barrel.

The operation of the stopper-holder C', in the operation of ejecting the stopper from the sleeve-tap A' is substantially the same as just described, excepting that said stopper-holder is positively inseparable from said sleeve-tap as long as the stopper-holder remains in an unbroken condition. The stopper-holder C' is the form that is preferably employed with sleeve-taps which have seen considerable service.

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

1. A sleeve-tap of the character herein described, in combination with a stopper which forms a closure for the bore of the inner end of said sleeve-tap, and a stopper-holder having said stopper flexibly attached thereto and fitted to slide loosely in the bore of the sleeve-tap; said stopper-holder being provided with a tooth, 10, which will engage in the bore of the sleeve-tap; said stopper holder being irremovable—by accident—from the bore of the sleeve-tap, as and for the purpose herein specified.

2. The combination of a sleeve-tap having a rib or stop in its bore, a stopper which forms a closure for the inner end of the bore of said sleeve-tap, and a stopper-holder fitted to slide loosely in the bore of said sleeve-tap and having said stopper flexibly attached thereto; said stopper-holder being arranged to take against said rib or stops, as and for the purpose herein specified.

HENRY E. BAILEY.

Witnesses:

RICHARD O. BASSETT,
WM. H. LOW.