

UNITED STATES PATENT OFFICE.

RICHARD B. SPIKES, OF BISBEE, ARIZONA TERRITORY, ASSIGNOR OF ONE-THIRD TO MARINE C. SPIRES AND ONE-THIRD TO HENRY D. HALL, OF BISBEE, ARIZONA TERRITORY

BEER-TAPPER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RICHARD B. SPIKES, a citizen of the United States, residing at Bisbee, in the county of Cochise, Arizona Territory, have invented a new and useful Improvement in Beer-Tappers, of which the following is a specification.

My invention is in the nature of a new beer tapper, for simultaneously drawing beer from a barrel and admitting compressed air, and it consists in a novel construction and arrangement of tapping devices, part of which are permanently fixed in the barrel, and part of which are retained at the bar or dispensing place and are applied by the bar keeper by being coupled on to the permanently attached members on the barrel; an important feature of my invention being a spring pressed conical valve interposed between the stationary parts of the bung casing and the removable coupling, which valve carries registering ports for air and beer and is adjusted by the application and removal of the said coupling and serves to insure a tight fit of the movable parts over each other as hereinafter fully described with reference to the drawing, in which

Figure 1 is a central section of the beer tapper shown applied to a barrel part of which is indicated at X. Fig. 2 is a plan view of the bung casing. Fig. 3 is a top perspective view of the spring valve. Fig. 4 is a bottom perspective view of the detachable coupling, and Fig. 5 is a sectional detail of the bung casing.

In the drawing, B represents the bung casing made of metal and formed with screw threads b^3 on its outer periphery which screw into the wood of the barrel. This bung casing is also provided with an overlapping flange c provided with screw holes to accommodate screws by which it is further secured to the wood of the barrel. The bung casing on its outer face has a cylindrical chamber and below this a conical chamber formed with a ground joint to make a valve seat.

In the conical chamber is seated a closely fitting conical valve A whose conical surface is, by means of a ground joint, made to accurately fit the conical seat. This valve is provided with a central depression a^3 on top and also a central hole through which passes a screw bolt C. This screw bolt is provided with an enlarged head having either a slot in it for receiving a screw driver or a squared head for a monkey wrench, by which it is turned. Its lower end is screw threaded and received into a screw threaded socket b^4 in the center of the bung casing. Around this bolt is wound a spiral spring c which bears at its upper end against the head of the bolt and at its lower end enters the recess a^3 of the valve and presses the conical face of the valve down upon the conical valve seat with a pressure which may be regulated by simply turning the screw bolt to more or less compress the spring.

As so far described, the parts are all permanently mounted upon the barrel and go with it from the brewery to the saloon.

D is a coupling which is to be applied to or removed from the other parts and is to be retained by the saloon or dispensing place and is applied by the bar keeper to the other parts of the beer tapper, as hereafter described. This coupling is of annular form, or ring-shape, with a central hole through it large enough to give place to the head of the bolt C and on opposite sides of the central opening are connections for the beer dispensing pipe P and air inlet pipe p . The beer outlet pipe P communicates with a port b^2 in the coupling D and the air pipe p communicates with a port a^2 in the coupling D. At opposite points on the outer edges of the annular coupling D are formed lugs d which are adapted to enter bayonet slots f in the bung casing which are formed with cam surfaces, as seen in Fig. 5, so that when the lugs d enter these slots and the coupling D is turned rotarily about its center, the lugs d will in passing under the inclined surfaces of the cam grooves cause the coupling to be tightly pressed down upon the valve A.

In the valve A are formed ports a and b the same distance from the center as the ports a^2 b^2 of the coupling D and in the bung casing B are also formed similar ports a' b' also the same distance from the center as the ports above. The registering ports on each side are straight and parallel to the axis of the valve, extending straight through from the inside to the outside of the keg. The ports a b in the valve are always in registration with ports a^2 b^2 in the coupling when the latter is applied, but the registration of ports a b of the valve with a' b' of the bung casing depends upon the axial position of the valve. When the valve A is turned to the position shown in Fig. 1, all the ports are in registration and beer may be drawn and air allowed to simultaneously enter, but when the valve A is turned a short distance about its axial center, ports a and b in the valve pass out of registration with a' and b' and the barrel is tightly closed, the valve being snugly held down on its seat by the elastic pressure of the spring.

The adjustment of the valve both for opening and closing is effected contemporaneously and by the same movement with the application or removal of the coupling D to the barrel by the bar keeper, as follows: On the under side of the coupling D is a pin e which is adapted to enter a hole e' in the top of the valve whenever the lugs d of the coupling enter the bayonet slots. Then when the coupling is turned axially to lock the coupling on, the pin e , acting as a clutch, also turns the valve A to bring its ports a b into registration with a' b' and conversely, when the barrel is empty and is to be sent back to the brewery the coupling D is turned

in the reverse direction to unlock it and this motion turns the valve A so that the ports *a* and *b* are out of registration with *a'* and *b'*.

I claim

- 5 1. A beer tapper, comprising a bung casing with ports, a rotary interlocking coupling with ports, a rotary valve with ports, all of said ports being straight and parallel to the axis of the valve, a spring for holding the rotary valve against the ported bung casing, said spring being arranged on the outer side of the valve and concentric thereto and a clutch device connecting the rotary valve and interlocking coupling.
- 10 2. A beer tapper, comprising a bung casing with ports, a rotary interlocking coupling with ports, a rotary valve with ports, all of said ports being straight and parallel to the axis of the valve, a central stem for the valve, a spring surrounding said stem on the outer side of said valve and pressing the valve against the ported bung casing, and a clutch device connecting the rotary valve and interlocking coupling.
- 15 3. A beer tapper comprising a bung casing with air and beer ports, a rotary interlocking coupling with air and beer ports, an intermediate rotary valve with air and beer ports, all of said ports being straight and parallel to the axis of the valve, and all of the air ports being equidistant from the axis of the valve, and all of the beer ports equidistant from the axis of the valve, a spring for pressing said valve upon its seat, and a clutch device for connecting the coupling to the valve for turning it.
- 20 4. A beer tapper comprising a bung casing with air and beer ports and a conical seat, a rotary interlocking coupling with air and beer ports, an intermediate conical rotary valve with air and beer ports, all of said ports being straight and parallel to the axis of the valve, and all of the air ports being equidistant from the axis of the valve, and all of the beer ports being equidistant from the axis of the valve, a spring for pressing the valve on its conical
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seat, and clutch devices for connecting the coupling to the valve for turning it.

5. A beer tapper, comprising a ported bung casing, a ported valve arranged in the casing, a bolt connected to the bung casing and extending centrally through the valve, a spring arranged about said bolt and pressing down upon the valve and a coaxial coupling inclosing the upper end of said bolt and interlocking with the bung casing.

6. A beer tapper, comprising a ported bung casing, a ported valve arranged in the casing, a bolt connected to the bung casing and extending centrally through the valve, a spring arranged about said bolt and pressing down upon said valve and an annular and coaxial coupling surrounding the upper end of said bolt and interlocking with the bung casing.

7. A beer tapper, comprising a bung casing having a conical seat and an air and beer port opening through the same, a conical valve having a corresponding conical seat and ports, a bolt connected to the bung casing and passing through the center of the valve, a spring wound around the bolt and pressing upon the valve and an annular coupling bearing air and beer pipes and interlocking devices for rotarily connecting it to the bung casing.

8. A beer tapper, comprising a bung casing having a cylindrical recess with conical valve seat having air and beer ports opening therethrough, a conical valve with corresponding ports, a central bolt passing through the valve and fixed to the bung casing, a spring arranged about the bolt to press the valve upon its seat, an annular coupling surrounding said bolt and having air and beer pipes attached, interlocking devices for connecting the coupling to the bung casing, and a clutch device for connecting the coupling to the valve.

RICHARD B. SPIKES.

Witnesses:

EDWD. W. BYRN,
 SOLON C. KEMON.