April 9, 1940. H. E. SCHULSE 2,196,709

BREW DRAFT EQUIPMENT

Original Filed Dec. 28, 1934

Fig. 2

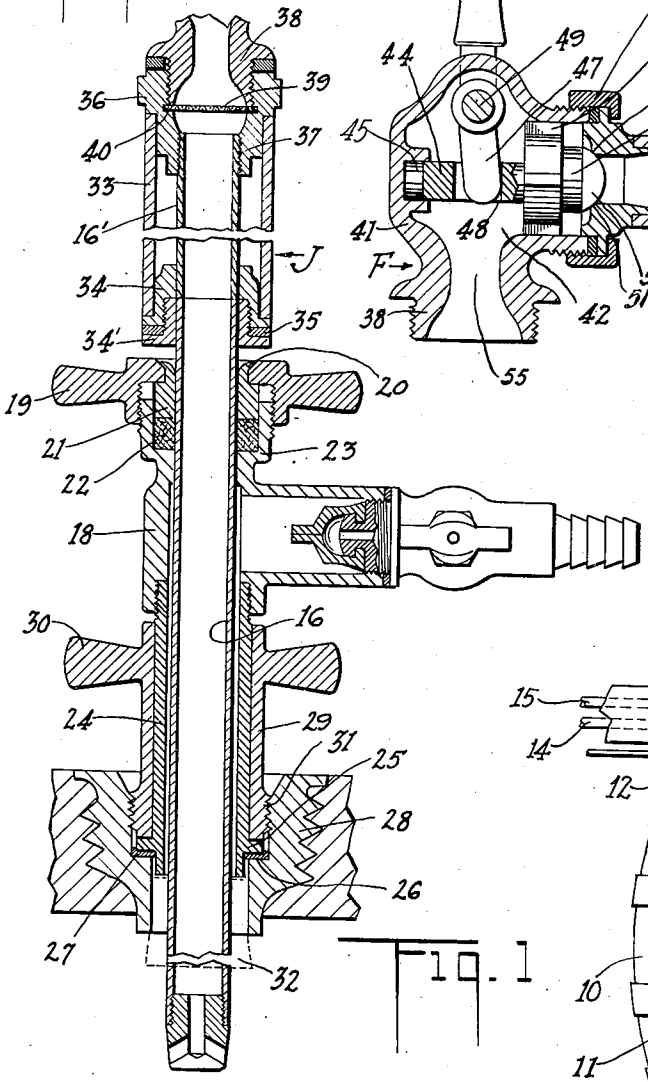


Fig. 3

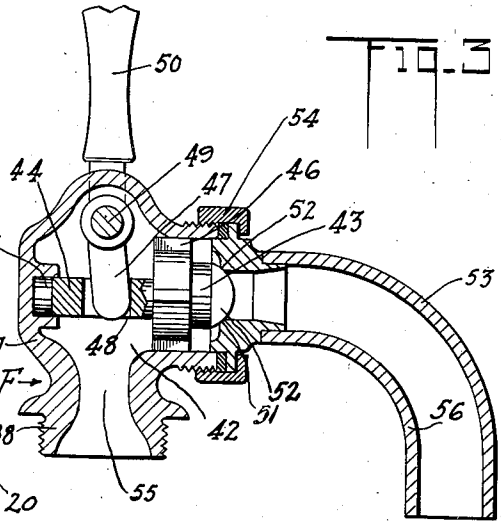
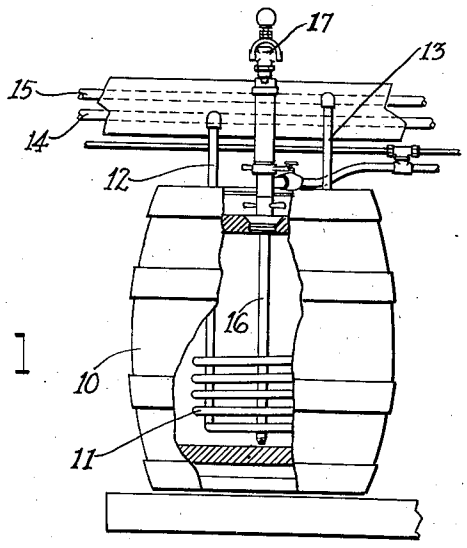


Fig. 1



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BREW DRAFT EQUIPMENT

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Original application December 28, 1934, Serial No. 759,440, now Patent No. 2,051,013, dated August 11, 1936. Divided and this application July 18, 1936, Serial No. 91,335

2 Claims. (Cl. 225—3)

My present invention relates to draft equipment of the type used in brew dispensing and while the invention in certain of its aspects is useful in other relations, it is particularly adapted for drawing directly from the keg or barrel brew already at proper dispensing temperature therein. The present application has particular utility in the installation and method disclosed and claimed in my prior application Serial No. 759,440 filed December 28, 1934, and issued August 11, 1936, under No. 2,051,013, and of which said application this is a division.

Among the objects of the invention are to provide draft equipment of simple and rugged construction by means of which brew may be reliably dispensed from near the bottom of the keg through a short course, discharging near the top of the keg and by the use of which the brew may be reliably delivered with the desired head or collar.

Another object is to provide draft equipment of the above type by which the brew is delivered without the possibility of impairment in the course of its flow from the keg and by which in particular the possibility of propelling the brew through any passage in which stale or fermented beer or beer incrustation has accumulated, is substantially precluded.

Another object is to provide draft equipment of the above type which may be readily disassembled when desired for convenient sterilization thereof.

According to the invention the draft tube has the discharge faucet mounted at the upper end thereof and is substantially devoid of pockets or traps so that neither brew nor admixture of brew with air become confined therein.

Another feature is the structure and correlation of the draft tube and faucet for imposing a resistance to flow coordinated with the pressure applied to the brew in the keg to bring about discharge in the desired condition though the flow is only through the short course from near the bottom of the barrel to slightly above its head.

In the accompanying drawing in which is shown one of various possible embodiments of the several features of the invention,

Fig. 1 is an elevation with parts broken away showing the draft tube applied to a keg for use in the installation and method of the parent application,

Fig. 2 is a view in longitudinal cross section of part of the draft equipment and its connections, and

Fig. 3 is a view partly in cross section showing a desirable faucet construction.

Referring now to the drawing, the illustrative showing of Fig. 1 comprises the keg 10 shown in the parent case, with the cooling coil 11 built therein and illustratively connected at its inlet and outlet by means of branch pipes 12 and 13 to the headers 14 and 15 through which cooling water is pumped for bringing to and maintaining the contents of the keg at the desired dispensing temperature. The draft rod 16 as shown in position in the draft outlet protrudes thereabove, with the discharge faucet 17, at its upper end.

In Figs. 2 and 3 I have shown the details of a desirable draft equipment including the draft tube and attached outlet faucet. The draft tube 16 is encircled by the conventional pressure gas inlet fitting or sleeve 18 the upper end of which is secured gas tight to the draft tube by a wing nut 19 to which is swivelled at 20 a land piece 21 pressing against a rubber washer 22 snugly encircling the draft tube 16 and lodged in a socket 23 on the sleeve 18.

The draft tube 16 is also encircled by a sleeve 24 the upper end of which is screwed into the lower end of sleeve 18 and which is flanged at 25 and carries a flexible washer 26 to rest on the ledge 27 within the metal draft bung 28 in the head of the barrel. The sleeve 24 is encircled by a swivel collar 29 having finger grips or a nut head 30 and threaded at 31 to fit into the metal bushing 28. When the draft tube is put in position, its lower end will in the first instance, rest upon the tightly fitting cork 32 in the bushing 28. As the sleeve 24 is now tightened into place by turning collar 29 its lower end extending beyond the flange 25 exerts pressure against the tightly fitting cork 32 in bushing 28 to loosen it by advancing it slightly. The draft tube 16 is now readily depressed through the collar 18, sleeve 24 and bushing 28 into the barrel into which the cork is forced.

The upper part of the draft tube 16 below the faucet F mounted on its upper extremity is desirably encircled by heat insulating air jacket J to keep the enclosed draft tube cold and to prevent sweating. For this purpose, a sleeve 33 of insulating material, such as "Bakelite" or vulcanite, of diameter considerably larger than that of the draft tube, is rested at its lower end upon a bushing 34 fast on the lower end of an upper section 16' of the draft tube, to which it may be cemented. The sections 16 and 16' are tightly held in abutting end to end relation, by screwing bushing 34 upon complementary threaded

nipple or bushing 34' which is fastened to the upper end of tube 16, a compressible washer 35 resiliently taking the thrust.

A metal bushing 36 is screwed at 37 upon the upper end of the draft tube section 16' and exerts pressure against the upper end of sleeve 33 to which it is preferably also cemented. Into the bushing 36 is screwed the stud 38 of the faucet F. Preferably a double ply fine mesh Monel metal filter screen 39 is placed between the shoulder 40 of bushing 36 and the bottom of the faucet F and serves as a guard to intercept any loosened chip, scale or the like that might be entrained by the beer from the barrel.

It is, of course, understood that the draft tube 16 might be made in one continuous piece, but the sectioned construction shown is preferred as it facilitates disassembly for cleaning and also facilitates economical replacement of any small section or fitting that has become injured.

The faucet in general outline may be substantially conventional. It comprises a casing 41 rising from the mounting stud 38 having a chamber 42 with a sliding valve 43, the axial shank or stem 44 of which is guided at its rear end in bearing 45 and carries at its forward end adjacent the valve a perforated guide collar 46 said valve operated by the lower end 47 of the operating lever, extending into a corresponding slot 48 in the stem 44, the lever being pivoted to the casing as at 49 and having an upstanding handle 50. The valve has a spherical seating head 51 of rubber, pressed to closed position against a spherical valve seat 52 at the inner end of the valve nozzle piece 53 assembled to casing 41 by means of a union nut 54.

The passage from the valve seat through the mounting stud of the faucet, extends longitudinally downward at shank 55, continuously from the valve seat to the lower stud extremity. Similarly the wall 56 of the nozzle 53 extends continuously downward in its longitudinal direction from the valve seat 52 to the spout. The middle portion of the faucet lodging the valve guide 46 extends horizontally. The trough or lower portions of the faucet passages thus serve as gutters completely and promptly to drain any remnant of brew therefrom, without possibility of brew remaining lodged or trapped therein.

The draft equipment described and claimed imposes a low resistance to the flow of the brew which renders it especially useful in the system and method as specifically described in the parent case, in which the gas pressure supplied to the brew of the barrel is substantially lower than the equilibrium pressure of the gas dissolved in the brew and in fact is of magnitude but little greater than that required to elevate the brew from the bottom of the draft tube to the faucet near the head of the barrel. Under such low pressure and with the use of the low resistance draft tube, the brew cooled within the barrel or keg escapes through the faucet without excess foaming and with the desired collar or head.

I claim:

1. Beer draft equipment, comprising a draft tube having a bushing affixed to its upper end, a faucet threaded into said bushing and a fine mesh metal screen having a flat rim clamped between said faucet and said bushing to intercept any loosened pitch or the like from the barrel.

2. Beer draft equipment, comprising a draft tube section, a flanged bushing thereabout near the lower end thereof, a second flanged bushing at the extreme upper end of said tube section, an insulating sleeve encircling said bushings, abutting the flanges thereof and spaced from said draft tube section to afford an insulating air space therebetween for protection of said draft tube from sweating at the otherwise exposed portion thereof, a second tube section, means cooperating with said first bushing to effect union between the two tube sections, and a faucet connected to the upper end of said first tube section.

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