

No. 888,406.

PATENTED MAY 19, 1908.

E. NEELY.

COOLER FOR BEER, &c.

APPLICATION FILED MAY 18, 1906.

3 SHEETS—SHEET 1.

Fig. 2

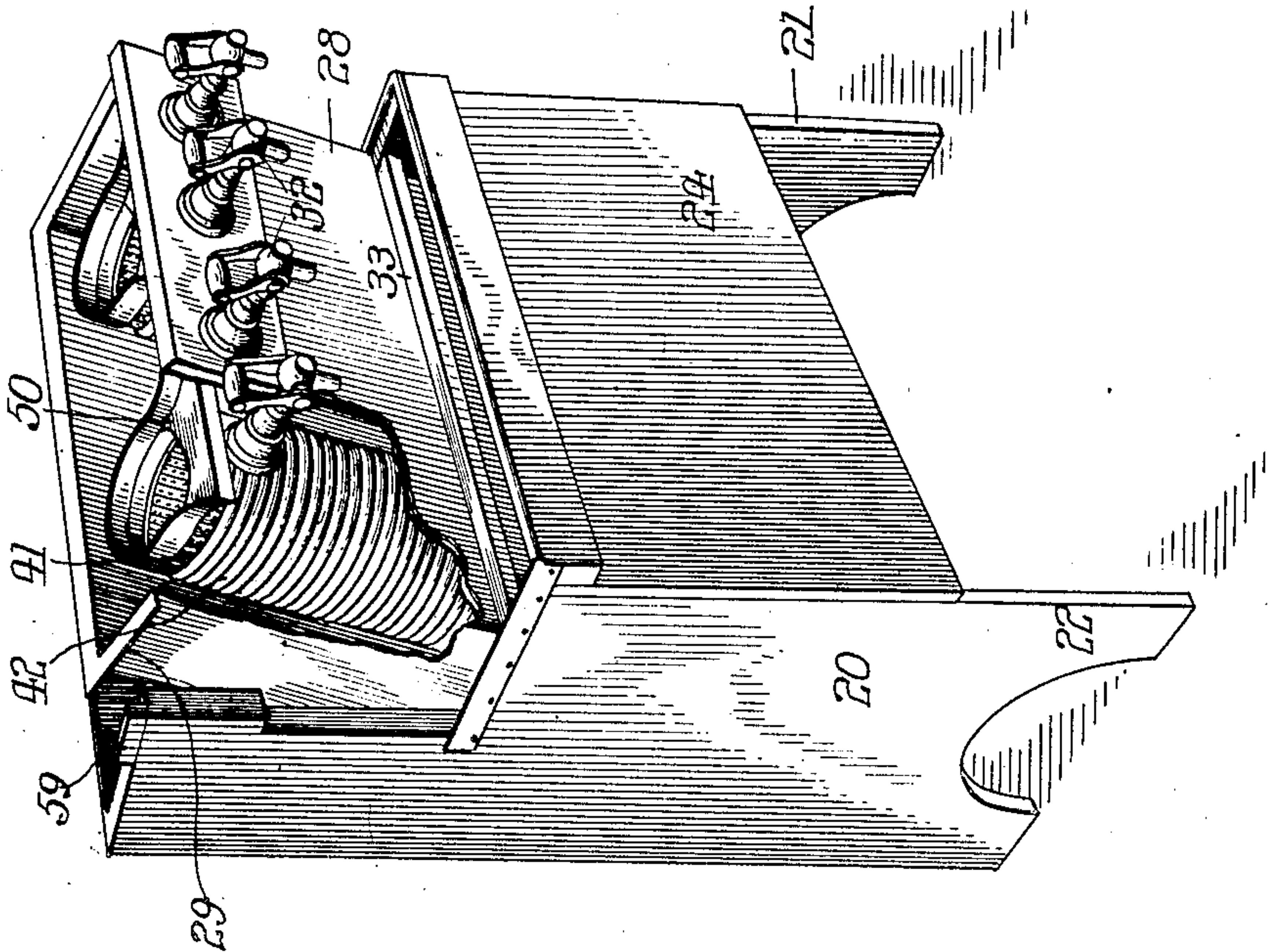
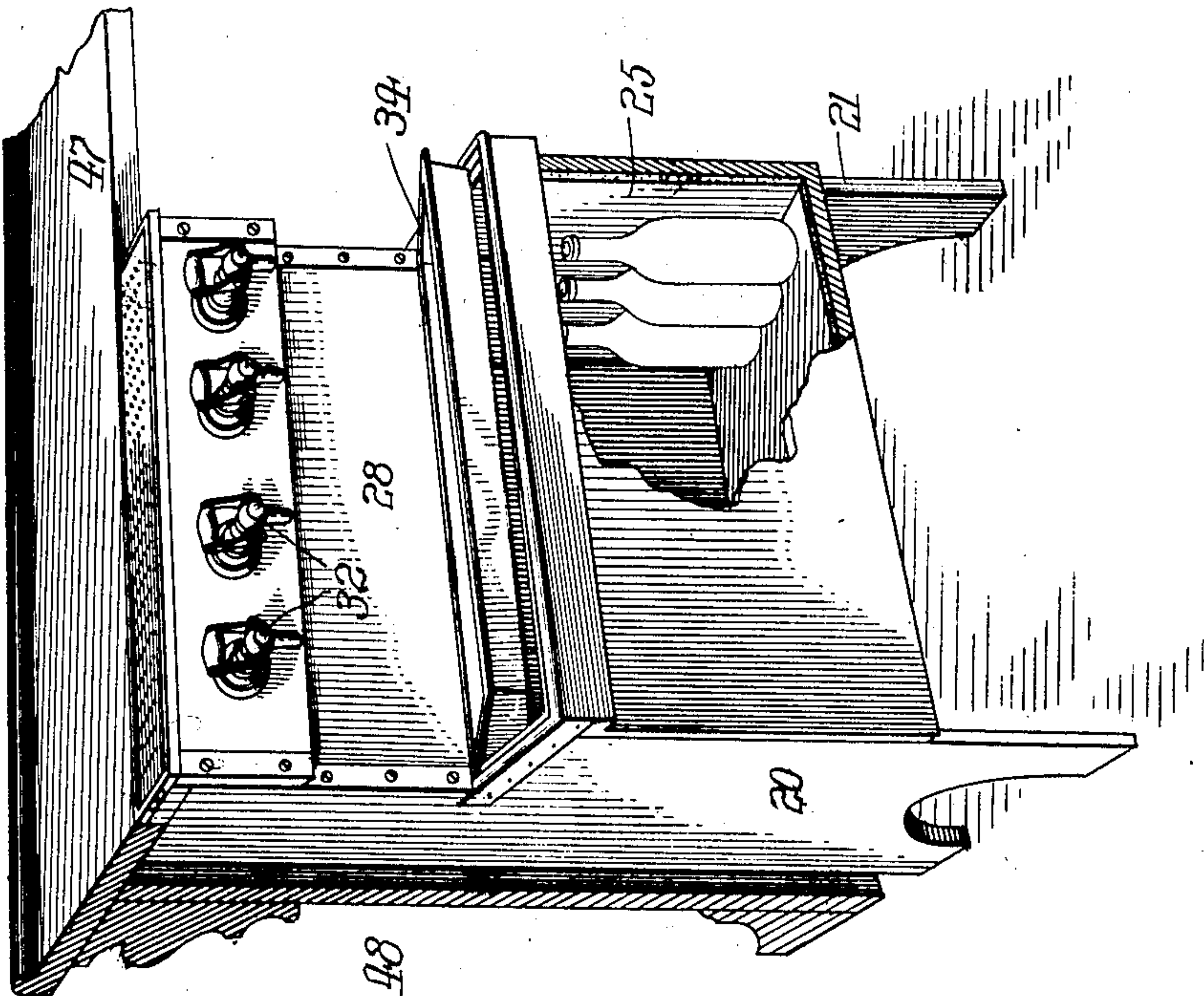


Fig. 1



Witnesses:

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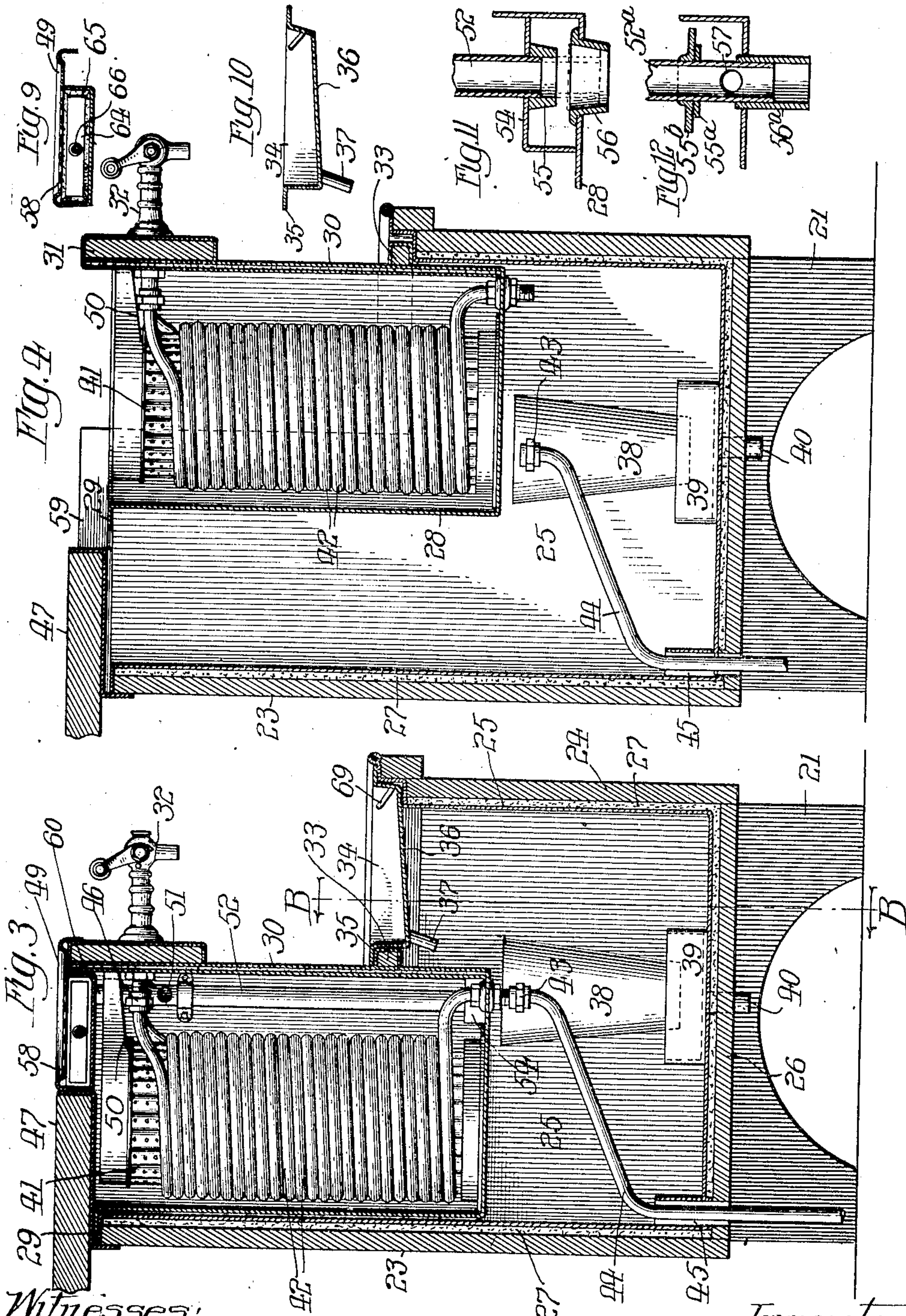
Edward Neely
by John Howard McChesney
his Att'y

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3 SHEETS—SHEET 2.



Witnesses:
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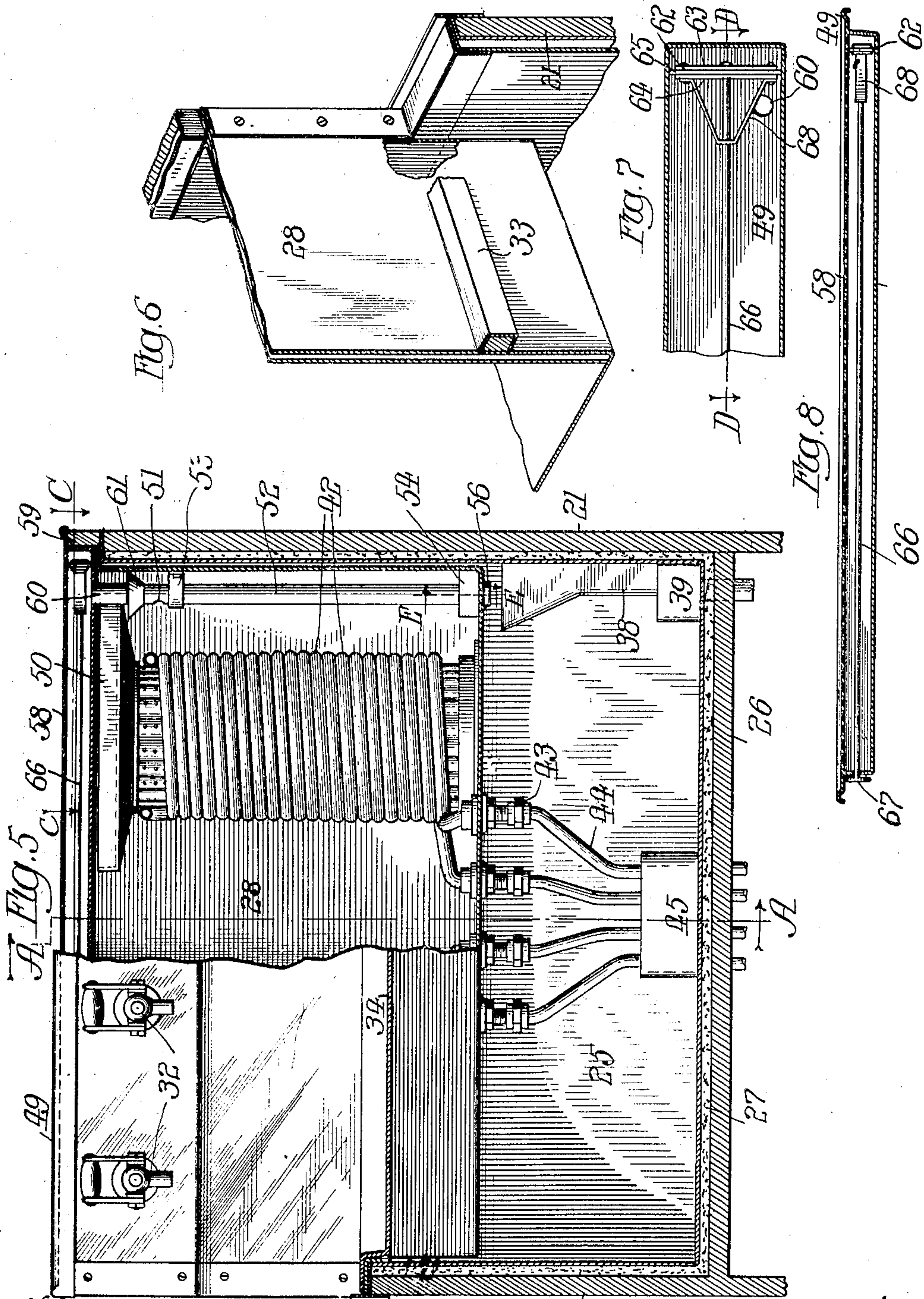
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3 SHEETS—SHEET 3.



Witnesses
Harold G. Bennett
E. H. Manchester

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UNITED STATES PATENT OFFICE.

EDWARD NEELY, OF CHICAGO, ILLINOIS.

COOLER FOR BEER, &c.

No. 888,406.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed May 18, 1906. Serial No. 317,483.

To all whom it may concern:

Be it known that I, EDWARD NEELY, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Coolers for Beer, &c., of which the following is a specification.

My present invention, which consists of certain improvements upon the structure shown in my prior application No. 223,333, filed September 6, 1904, is concerned with a novel cooler of the class described, which is extremely simple and compact in its construction, economical in the use of ice, which cannot readily get out of order, and in which the coils are fully protected from any possibility of their being flattened or cut by contact with the ice. In use, it has the advantage of being quickly and conveniently filled with ice, and when desired the coil chamber with the coils and faucets in place therein can be quickly and easily removed from the cabinet. The drain plate can be quickly cleaned, and in general the complete apparatus is easily kept in a sanitary condition with the employment of but little work for that purpose. It is further adapted to be used in connection with a bar without cutting the counter top, as has been necessary heretofore in similar devices.

I will first describe in detail the construction of the complete apparatus, and finally in the claims, I will point out the novel elements and combinations.

To illustrate my invention, I annex hereto three sheets of drawings, in which the same reference characters are used to designate identical parts in all of the figures, of which,

Figure 1 is a perspective view of the apparatus in position relative to the bar and with a portion of the casing broken away and with the drip pan partially lifted from its normal position; Fig. 2 is a perspective view of the cabinet, without the bar, and with the coil chamber detached from its connections, drawn forward and inclined slightly and broken away to show the construction; Fig. 3 is a sectional view on enlarged scale on the line A—A of Fig. 5; Fig. 4 is a similar view but with the coil chamber detached and drawn forward from beneath the counter top so that it can be removed from the cabinet; Fig. 5 is a front elevation with a portion of the cabinet in section on the line B—B of Fig. 3, and with a portion of the front of the coil chamber broken away; Fig. 6 is

a perspective view of a portion of one of the lower front corners of the coil chamber and adjacent portion of the cabinet showing how the coil chamber is supported therein and can be slid forward on the edge of the wider bottom portion of the cabinet; Fig. 7 is a plan view of the drain plate in section on the line C—C of Fig. 5; Fig. 8 is a longitudinal section through the drain plate on the line D—D of Fig. 7; Figs. 9 and 10 are vertical sections through the drain plate and drip pan to correspond with the section line on which Fig. 4 is taken; from which these parts are supposed to be removed; Fig. 11 is an enlarged detail in section on the line E—E of Fig. 5; and Fig. 12 is a similar view showing a modified construction.

The cabinet, constituting a supporting member for the various elements to be hereinafter described, preferably consists of the bottom portion and the narrower top portion over the rear of the bottom portion, the bottom portion being employed as a cold storage chamber for bottled goods, etc., and the top portion being employed as the coil or cooling chamber. The cabinet is made up of the end pieces 20 and 21, which are of the shape to correspond to the top and bottom portions mentioned, and which preferably also have the legs 22 formed integrally therewith. The rear side 23 is plain and extends past both portions of the cabinet, while the front piece 24 extends up only to form the front wall of the lower portion of the cabinet, the front wall of the upper portion of the cabinet being formed by the coil chamber, as will be hereinafter described. The entire cabinet is provided with the sheet metal lining 25 which is shaped to correspond, and which is preferably separated from the wooden side pieces 20 and 21, the front and rear walls 23 and 24 and the bottom 26 by the non-conducting backing 27, which is preferably composed of paper, the result being that a water tight cabinet is produced which is adapted to be insulated, as it were, from the outside temperature so as to keep the interior of the cabinet cool by means of the ice in the coil chamber.

The coil chamber 28, preferably detachable from the narrower top portion of the cabinet which it occupies, is made up of the rectangular metallic casing or tank open at the top and having the horizontal flanges 29 projecting outwardly from the ends and rear thereof and resting on the corresponding

flanges of the lining 25 to support the coil chamber in position. These flanges on the top of the top portion together with those on the top of the offset portion of the wider bottom portion of the cabinet constitute guides or guide rails upon which the coil chamber is slidably mounted. The front wall 30 of the coil chamber is preferably, as seen, made of two thicknesses of sheet metal with a layer of the packing 27 interposed between them. At the top of its front edge, it is reinforced by the preferably wooden strip 31, likewise preferably covered by sheet metal, and serving as a support for the faucets 32 which are passed therethrough. The front wall 30 of the coil chamber is also provided with the narrow strip 33, which forms a sort of a flange, as it were, and which is also preferably covered with the sheet metal, and upon which the rear edge of the drip pan 34 rests. This drip pan is made of sheet metal and open at the top and provided with the horizontal flanges 35 at the top extending outwardly on all sides thereof, the rear flange resting, as stated, on the strip 33, the end flanges resting upon those portions of the flanges of the lining 25 that rest upon the adjacent portion of the end pieces 20 and 21. The drip pan has its bottom 36 inclined downwardly to the rear so that the drippings will run to the discharge pipe 37 placed in one corner thereof and so located as to discharge into the stationary drain funnel piece 38 secured to the metal lining 25 at one end and discharging into the receptacle 39 on the bottom which has the drain pipe 40 opening into the bottom thereof to discharge not only the drippings, but also the water from the coil chamber in the manner to be hereinafter described.

The coil chamber 28 is preferably provided with one or more preferably sheet metal cylinders 41, which may be perforated, as shown, and which have the cooling coils 42 wound around them in helical spirals, a pair of coils being preferably provided to each cylinder. The coils are passed through the bottom of the chamber, as shown, and are detachably secured by the connections 43 with the supply pipes 44 which pass through the aperture 45 provided in the bottom of the rear of the cabinet down to the cellar or wherever the kegs or barrels from which the beer or other fluid being retailed are kept. The upper ends of the coils are connected by the unions 46 with the faucets 32 so that the contents of the coils can be drawn off as desired. The coil or cooling chamber 28 and its faucets 32 and associated coils and connections constitute a dispensing member which is slidably mounted on the guides or guide rails formed by the horizontal flanges on the lining 25, and which is adapted to extend partly underneath said bar when at one limit of its movement. The rear por-

tion of the cabinet is intended to extend beneath the counter top 47 of the bar 48, so that it is disposed beneath or below and rearwardly of the bar, and the tops of the cylinders 41 extend partially beneath the counter top 47, and in order that the ice may be conveniently placed in the cylinders when the drain plate pan or basin 49 is lifted off for this purpose I provide on the tops of the cylinders 41 the hopper shaped extensions 50 which reach to the front of the chamber and beneath the drain pan so that the ice can be placed on these extensions and shoved back into the cylinders. It will, of course, be understood that these cylinders are provided and the ice placed inside of them so that the coils wound about the cylinders cannot be touched by the chunks of ice and damaged thereby, although they are constantly surrounded by the ice water produced by the melting of the ice and their contents thereby kept at the desired temperature.

The ice water in the coil chamber is kept at the proper level by means of the overflow aperture 51 in the drain pipe 52 which extends to the bottom of the coil chamber at one end thereof and is mounted to slide vertically in the guide pieces or bearings 53 and 54. The bottom of the pipe 52 in one form of my invention is provided with the enlargement 55 which is preferably ground to a conical shape so as to form a water tight valve connection with the shell 56 secured in the bottom of the coil chamber 28 and having its interior ground at the same angle as the outside of the enlargement 55. Normally the enlargement 55 is seated so as to form a water tight joint so that the ice water will stand at the level of the over flow aperture 51, but when the ice water is to be emptied the pipe 52 is lifted up so as to disengage its lower end, as seen in Fig. 11, when the water in the coil chamber will flow through the shell 56 which is so located as to discharge the water into the directing funnel or passage 38. As an alternative form of this construction I may provide the elongated cylindrical shell 56^a and provide the aperture 57 in the bottom of the tube 52^a just beneath the packing ring 55^a placed beneath the annular abutment 55^b secured to the top so that as the tube is thrust down, the modified valve thus formed will be seated and the fluid contents of the coil chamber retained in place.

The drain plate or basin 49 which is substantially flush with the bar and adapted to receive liquid deposited thereon is preferably made in the shape of the rectangular metallic trough having the top portion 58 thereof extended beyond the body portion at its front and ends so as to fit over the front strip 31 of the coil chamber and the extensions 59 of the ends 20 and 21 of the cabinet so that it is se-

cured in place between said parts and the edge of the counter top 47. The top portion 58 of the drain plate is preferably depressed between the edges, as shown, to prevent the glasses sliding or being accidentally shoved off of the same, and is perforated to allow the liquid thereon to pass into the trough like body of the drain plate and run to the aperture connected with the short drip pipe 60 which is located at one corner so as to discharge the drainings into the top of the pipe 52 which preferably has the funnel shaped enlargement 61 for this purpose. It will be seen that the drain pipe 52 and the drip pipe 60 constitute drain pipes connected with the coil or cooling chamber and with the drain plate or basin therein and discharging in the drain funnel 38. To readily clean the drain plate, I locate in it the swab 62, which is preferably made of the metallic plates 63 and 64 having the rectangle 65 of felt or some other suitable material clamped between them. This swab is connected to the rod 66 extending the length of the drain plate and having the handle 67 extending out through the aperture in the end thereof, as shown in Fig. 8, so that by removing the drain plate and taking hold of the handle 67, the swab can be moved back and forth in the drain plate after the same has been immersed in water charged with any desired cleansing compound so that it can be rapidly and thoroughly cleansed. To hold the swab rigidly in place, I preferably provide the brace strip 68 through which the rod 66 passes and which acts in the manner which will be readily apparent.

The action of the complete apparatus will be easily seen. In its normal use, the cylinders 41 are filled with lumps of ice, and the ice water in the chamber extending to the tops of the coils always keeps the beer at the desired temperature. This coil chamber occupying only the top portion of the cabinet leaves a space in the bottom, and especially in the front portion thereof beneath the drip pan, for storage of bottled goods, as indicated in Fig. 1, and by lifting out the drip pan by the handle 69 access to these bottles is readily obtained. The ice can be quickly and easily replenished by simply lifting the drain plate off. When it is desired to remove the coil chamber for repairs, or any other purpose, the drip pan is first removed, the unions 43 are then disconnected and the coil chamber can be drawn forward into the position shown in Fig. 4, its edges sliding on and being supported by the sides of the front part of the wider bottom portion, as clearly shown in Fig. 6.

While I have herein shown and described my novel hollow drain plate and the means for cleaning same, I do not herein claim the said drain plate, but reserve the subject matter thereof for a divisional application.

While I have shown and described my invention as embodied in the form which I at present consider best adapted to carry out its purposes, it will be understood it is capable of modifications, and that I do not desire to be limited in the interpretation of the following claims except as may be necessitated by the state of the prior art.

What I claim as new, and desire to secure by Letters Patent of the United States is:

1. The combination with the bar, and a supporting member disposed beneath and rearwardly of the same, of a cooling and dispensing member carried by said supporting member and normally extending partly beneath said bar, the drain basin extending only over the top of the portion of the cooling and dispensing member not covered by the bar and forming a covering for that portion, and draining mechanism carried by said drain basin and said members.

2. The combination with the bar, and a supporting member disposed beneath and rearwardly of the same, of a cooling and dispensing member carried by said supporting member and normally extending partly beneath said bar, the drain basin extending only over the top of the portion of the cooling and dispensing member not covered by the bar, said drain basin being removable to give access to the cooling and dispensing member for icing it without removing it from beneath the bar, and draining means carried by said drain basin and said members.

3. The combination with the bar, and a supporting member disposed beneath and rearwardly of the same, of a cooling and dispensing member carried by said supporting member, normally extending partly beneath said bar and having its side away from the bar extending up nearly to the level of the bar, the drain basin extending over the portion of the cooling and dispensing member not covered by the bar and adapted to fit down in between the rear edge of the bar and the side of the cooling and dispensing member opposed thereto, and having an extension resting on said side, and draining means carried by said drain basin and said members.

4. The combination with the bar, and a supporting member disposed beneath and rearwardly of the same, of a cooling and dispensing member carried by said supporting member, normally extending partly beneath said bar and having its side away from the bar extending up nearly to the level thereof, the drain basin extending over the top of the portion of the cooling and dispensing member not covered by the bar and adapted to fit down in between the rear side of the bar and the side of the cooling and dispensing member opposed thereto, said drain basin being removable to give access to the cooling and dispensing member for icing it without removing it from beneath the bar, and drain-

ing means carried by said drain basin and said members.

5 5. The combination with the bar, and a supporting member disposed beneath and rearwardly of the same, and bearings carried by said supporting member, of a cooling and dispensing member movably mounted on said bearings and adapted to extend partly underneath said bar when at one limit of its
10 movement and to have its top moved from underneath said bar when at the other limit of its movement, the drain basin extending only over the top of the portion of the cooling and dispensing member not covered by the
15 bar, said drain basin being removable to give access to the cooling and dispensing member for icing it without removing it from beneath the bar, and draining means carried by said drain basin and said members.

20 6. The combination with the bar, and a supporting member disposed beneath and rearwardly of the same, and bearings carried by said supporting member, of a cooling and dispensing member movably mounted on
25 said bearings and adapted to extend partly underneath said bar when at one limit of its movement and to have its top moved from underneath said bar when at the other limit of its movement, and having its side away
30 from the bar extending up nearly to the level of the bar, the drain basin extending over the top of the portion of the cooling and dispensing member not covered by the bar and adapted to fit down in between the rear edge
35 of the bar and the side of the cooling and dispensing member opposed thereto, said drain basin being removable to give access to the cooling and dispensing member for icing it without removing it from beneath the bar,
40 and draining means carried by said drain basin and said members.

7. The combination with the bar, of the coil chamber adapted to extend partially beneath the bar, the drain plate covering a portion of the chamber not beneath the bar, the
45 ice holding cylinder, the coil about the cylinder, and the hopper shaped extension on the top of the cylinder extending toward the side away from the bar, for the purpose described.

8. The combination with the bar, of the
50 coil chamber adapted to extend partially beneath the bar, the drain plate covering a portion of the chamber not beneath the bar, the ice holding cylinder, the coil about the cylinder, the faucet in the front of the coil
55 chamber to which the pipe extends, and the hopper shaped extension on the top of the cylinder extending toward the side away from the bar and covering the connections between the pipe and the faucet.

9. The combination with a bar, of a supporting member disposed below and rearwardly thereof, guides therein, a drain-funnel therein, a cooling-chamber mounted on said
60 guides and slidable thereon and adapted to receive the pipe-coils disposed in said cooling-chamber and adapted to be connected with beer-barrels and with faucets carried by said cooling chamber, a basin mounted upon
65 the said cooling-chamber substantially flush with said bar and adapted to receive liquid deposited thereon, and drain-pipes connected with said cooling-chamber and with the basin therein and discharging into said drain-funnel.

75 In witness whereof, I have hereunto set my hand, this 12th day of May 1906.

EDWARD NEELY.

In the presence of witnesses:

JOHN H. McELROY,
E. K. MANCHESTER