P. TOGLESON.

MINER'S LAMP.

APPLICATION FILED MAR. 3, 1910.

969,812. Patented Sept. 13, 1910.

Fig. 1.

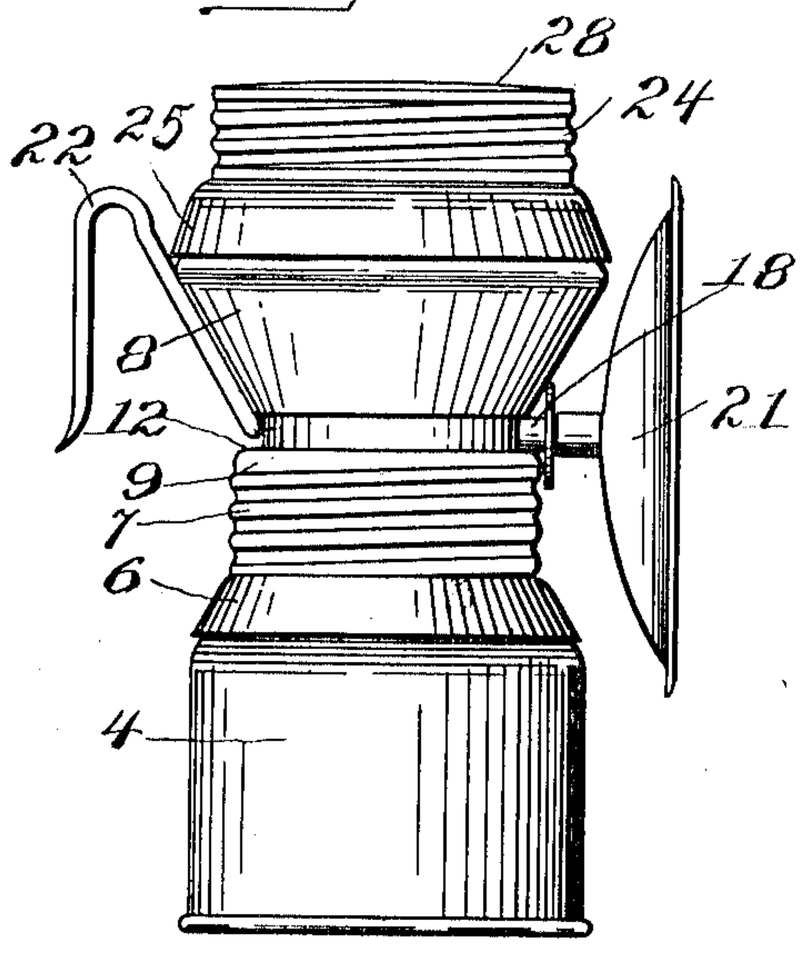


Fig. 2.

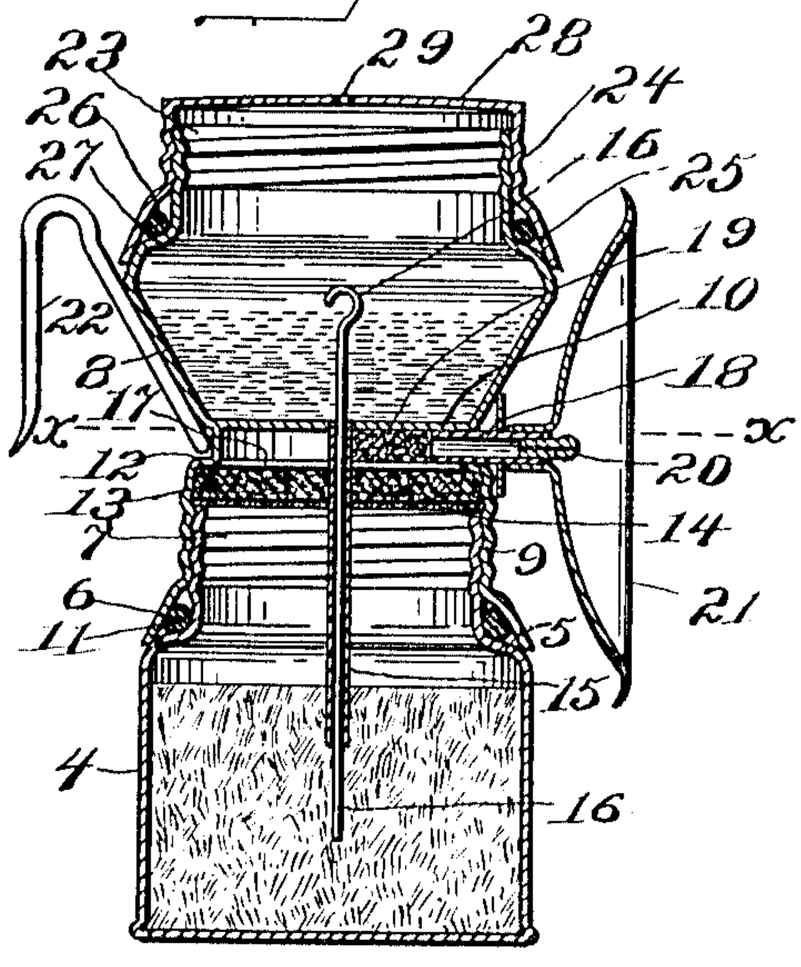
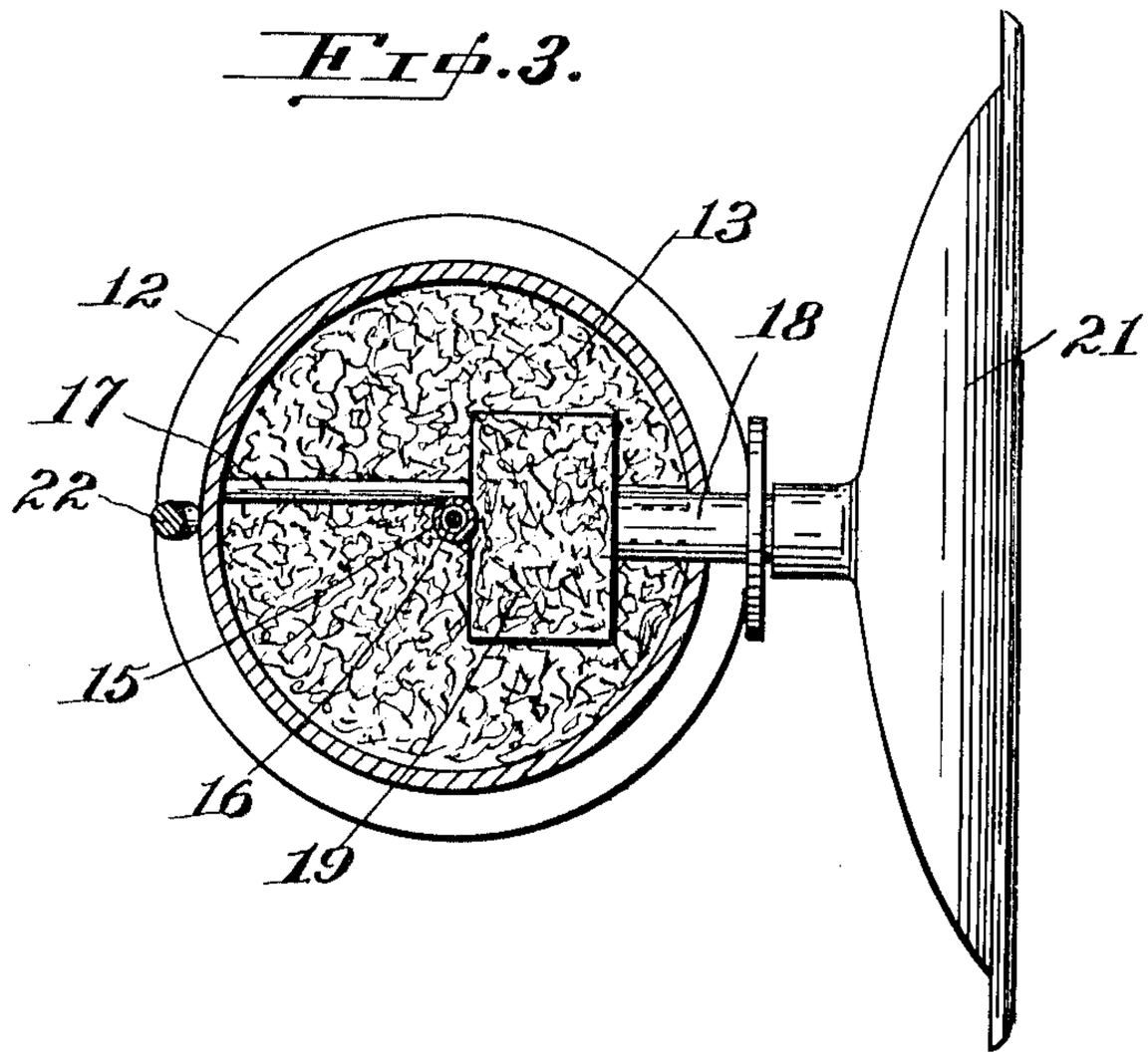


Fig. 3.



Witnesses
Wm. E. Valk Jr.
L. L. Barkley.

Inventor
Peter Togleson,
by Francis Allemany,
Attorney.

UNITED STATES PATENT OFFICE.

PETER TOGLESON, OF DEEPWATER, MISSOURI.

MINER'S LAMP.

969,812. Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed March 3, 1910. Serial No. 547,117.

To all whom it may concern:

Be it known that I, PETER TOGLESON, a citizen of the United States of America, and resident of Deepwater, in the county of Henry and State of Missouri, have invented certain new and useful Improvements in Miners' Lamps, of which the following is a specification.

This invention relates to improvements in miners' lamps and particularly to that type embracing means for generating and consuming acetylene gas.

An object of this invention is to produce a compact generator and consumer of the general shape of lamps now employed by miners by suspending the said lamps from their caps or from other portions of their garment and the purpose of this invention is to produce novel means for associating the carbid container, the liquid container and the burner in such relation as to effect an automatic delivery of the liquid to the carbid holder, means being also provided for accelerating or augmenting the supply of liquid to the carbid upon proper manipulation of a portion of the apparatus, as will be presently explained.

A still further object of this invention is to produce a carbid holder and liquid supply therefor and a novel arrangement of sifters or screens interposed between the carbid holder and the burner for consuming the gas whereby the clogging of the conduit or pipe and the burner tip is effectively prevented, means being also provided for rendering the parts just described readily accessible for the purpose of removing deposits of foreign matter therefrom.

Furthermore, an object of the invention is to produce an apparatus of the character noted having a reflector removably secured in relation to the burner or tip and adapted to be used in the usual manner.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, in which—

Figure 1 illustrates a view in side elevation of an apparatus embodying the invention; Fig. 2 illustrates a vertical sectional view of the lamp. Fig. 3 illustrates a horizontal sectional view on an enlarged scale taken on a line corresponding to the line *x*—*x* of Fig. 2.

In these drawings 4 denotes the base which is also the carbid holder or container, the said base having an external annular shoulder 5 serving as a seat for a packing ring 6 and further a portion 7 above the shoulder forming the mouth of the base which portion 7 shown in the form in Fig. 2, is screw threaded.

There is a liquid container associated with the base and it comprises in its construction a receptacle 8 having a flange 9 extending a suitable distance below the bottom 10 of the receptacle, the said flange being flared as at 11 for the purpose of embracing and bearing against the packing ring 6, whereas a portion of the said flange between the flared portion 11 and the bottom 10 of the receptacle is threaded to engage the screw threads of the portion 7, of the base. The flange is also shaped to form an annular shoulder 12 which forms a seat for the textile strainer 13 shown in Fig. 3 as being in the shape of a disk. In addition to the textile strainer 13, I prefer that a metallic sieve 14 shall lie in contact with the surface of the textile strainer and when the parts are in assembled relation, the upper edge of the member 7 of the base will serve to hold the sieve and strainer in position between the upper edge of the member 7 and the annular shoulder 12.

As shown in the drawing, there is a tubular extension 15 leading from the bottom 10 to the carbid container, the said tubular extension being in communication with the liquid receptacle through the bottom 10 of said receptacle. The tubular extension is further provided with a small rod 16 which is movable longitudinally of the tubular extension and is designed to extend into the carbid container; said rod being smaller than the tube in order that liquid may pass through the tube. By manipulation of the rod just mentioned, the carbid may be agitated to some extent. The chief function, however, of the rod 16 is to retard the flow of liquid from the liquid receptacle to the carbid. The flange of the liquid receptacle supports a cross-bar 17 which cross-bar confines an auxiliary textile screen 19 and holds said screen at the inner end of the conduit or tube 18 for the purpose of preventing ac-

cess of material other than that to be consumed from entering the burner. As shown in the drawing, the auxiliary screen 19 is held between the tubular extension 15 and the inner end of the conduit 18 while resting on the bar 17.

The pipe or conduit 18 has a nipple 20 which may be of any ordinary type and a removable deflector 21 and is supplied as heretofore stated and the deflector is mounted on the outer end of the conduit.

The apparatus may be provided with any suitable suspending means, but I have shown the same as being provided with a hook 22 such as is usually employed in miners' lamps.

The mouth 23 of the liquid receptacle is threaded to receive the threaded cap 24, and the said cap is provided with a flange 25 for engaging a packing ring 26. There is an annular shoulder 27 externally of the liquid receptacle against which the packing ring is forced by the flange 25.

By referring to Fig. 2, it will be seen that the top 28 of the cap is provided with an aperture 29, and said cap is slightly convexed and it is the purpose of the inventor to make this top of flexible material which will normally assume the position in which it is illustrated. The top, however, may be flexed to an extent by pressure on the top thereof and the action just described is relied upon to augment the flow of liquid to the carbid container. When the supply of liquid to the carbid container has been found insufficient, the operator may press on the top 28 and at the same time close the aperture 29 and when the said top is pressed downwardly there will be sufficient compression of the air contained in the liquid receptacle to force a slight amount of liquid through the tube to the carbid container and as the said top will assume its normal position upon removal of the pressure, repetition of the operation may be carried on until the required amount of liquid has been driven to the carbid.

By reason of the fact that the apparatus is of the sectional type, the parts are readily accessible for the purpose of renewing the supply of carbid or liquid or for the purpose of cleaning the apparatus or for the renewal of parts that have become impaired in use.

I claim—

1. In a generator, a burner, a base for containing carbid, a receptacle having a flange threaded on the base, a pipe in communication with the base through the flange of the liquid receptacle, screens interposed between the base and the said pipe, means for supplying liquid from the receptacle to the carbid, and a cap for said receptacle having a flexible top provided with an aperture.

2. In a generator, a burner, a base for containing carbid having a threaded portion, a liquid receptacle having a flange threaded thereon, a tubular extension in communication with the liquid receptacle and the base, a rod slidable in the tubular extension, a pipe or conduit in communication with the base, screens interposed between the base and the pipe, a nipple for the pipe, a cap for the liquid receptacle and a flexible top for the cap, said top having an aperture therein.

3. In a generator, a burner, a base for containing carbid having a threaded portion, a liquid receptacle having a flange threaded thereon, a tubular extension in communication with the liquid receptacle and the base, a rod slidable in the tubular extension, a pipe or conduit in communication with the base, an annular shoulder formed on the flange, a strainer between the base and shoulder, a cap for the liquid receptacle, and a flexible top for the cap, said top having an aperture therein.

In testimony whereof, I affix my signature in the presence of two witnesses.

PETER TOGLESON.

Witnesses:
E. H. HENRY,
J. M. PIGG.