

June 19, 1923.

1,459,576

G. DATE

ATTACHMENT FOR MINERS' LAMPS

Filed May 31, 1922

Fig. 1.

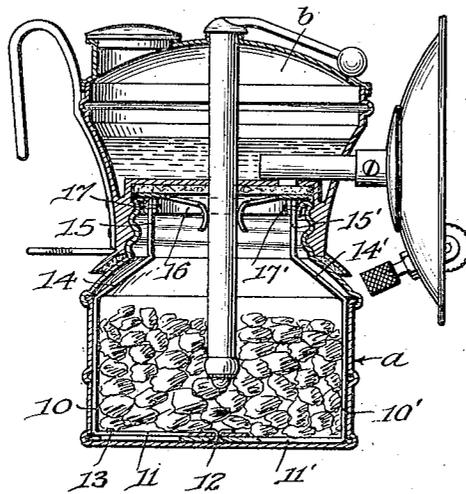
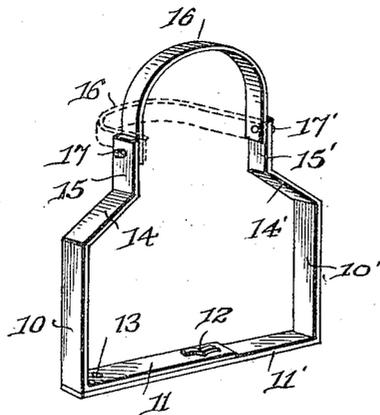


Fig. 2.



Goichi Date,

INVENTOR.

BY
Geo. P. Kimmel,

ATTORNEY.

UNITED STATES PATENT OFFICE.

GOICHI DATE, OF SUBLET, WYOMING.

ATTACHMENT FOR MINERS' LAMPS.

Application filed May 31, 1922. Serial No. 564,782.

To all whom it may concern:

Be it known that I, GOICHI DATE, a citizen of Japan, residing at Sublet, in the county of Lincoln and State of Wyoming, have invented certain new and useful Improvements in Attachments for Miners' Lamps, of which the following is a specification.

This invention appertains to certain improvements in miners' lamps and the like generally, and has for its principal object to provide for a novel form of attachment for that type of such lamps employing carbide as the gas generating fuel thereof whereby the used carbide residue of the lamp may be easily and readily displaced from the container thereof for the recharging of the latter with a fresh supply of the carbide.

Another object of the invention is to provide for an attachment of the class mentioned, and one capable of being readily placed in or removed from its operative position within the carbide container portion of a miner's lamp or the like, and which is of a design to be extremely easy to operate for the effective freeing of any and all adhering portions of moistened or used carbide, or incrustations thereof, from the exterior walls of the container.

A further object of the invention is to provide for a device of the character set forth, and one of an extremely durable but simple construction and arrangement, highly efficient in operation, and inexpensive to manufacture.

With the foregoing, and other equally important objects in view, the invention resides in the certain novel and useful construction and arrangement of parts as will be hereinafter more fully described, set forth in the appended claims, and illustrated in the accompanying drawing, in which:—

Figure 1 is a vertical section through a conventional form of carbide lamp and showing a preferred embodiment of the attachment as installed within the carbide container portion thereof, and,

Figure 2 is a perspective view of the attachment per se.

Referring to the drawing, the reference character *a* designates the lower carbide container portion, of a miner's lamp or other similar type of carbide gas lamp, and *b* the upper water containing portion thereof, superposed on the container portion *a*.

The upper open end of the carbide container *a* is of a reduced diameter and is screw threaded into engagement with the complementally threaded lower open end portion of the water container portion *b*. All of the foregoing structure is of usual form and not constituting any part of the subject matter of the present invention.

The attachment is in the form of a metal frame fitted into the carbide container *a*, whereby, upon having turning movements imparted thereto, the several members of the frame will effectively scrape the side and bottom walls of the container *a* in a manner to clear the same of any and all portions of moist carbide and hardened incrustations thereof, when it is desired or necessary to recharge the container with fresh carbide. The preferred embodiment of this frame comprises two strips of metal 10 and 10' having their lower ends bent at right-angles to provide horizontally disposed portions 11 and 11', respectively, the portion 11 being arranged in overlapping relation with respect to the portion 11' which is of a length merely equal to that of the diameter of the carbide container *a* while the portion 11 is only of a length to extend slightly beyond the transverse center of the portion 11', where it is secured to the latter for pivotal movements with respect thereto by means of a rivet or the like 12. Immediately inward of the free end of the portion 11', the same is provided with an upstanding stud 13 which engages in an opening formed in the portion 11, whereby relative movements between the two parts of the frame is prevented during the operation of the attachment for its intended purposes. For the insertion of the attachment within, or its removal from operative position within the carbide container *a*, the opening of the part 11 will be disengaged from the stud 13, when the two parts 11 and 11' may be swung on the pivot 12 to positions one adjacent to the other for such purpose.

The upper ends of the vertical portions of the frame members 11 and 11' are inwardly and angularly bent to provide oppositely inclined intermediate portions 14 and 14', which conform somewhat to the inwardly inclined portion or wall of the carbide container *a* immediately below the screw threaded neck portion thereof. At the upper ends of the inclined portions 14 and 14',

the free ends of the same are angularly bent to provide vertically extending portions 15 and 15', which project upwardly in the opposite sides of the reduced neck portion and have attached to the upper ends thereof an operating bail 16. This bail 16 is of substantially semi-circular form having its opposite ends pivoted in position by means of pivot pins 17 and 17' engaged in openings formed in the vertical portions 15 and 15', respectively.

In the use of the device as thus constructed and arranged, the same is positioned within the carbide container *a*, prior to the placing therein of a charge of carbide. After the carbide charge has been placed within the container *b*, the latter will be screwed on to the lower end of the water container *a* in the usual manner of these devices, with the bail 16 of the attachment swung to horizontal position within the confines of the neck portion of the container. When the gas generating qualities of the carbide charge have become poor or otherwise unsuited for the further generation of gas, through the the moistening of the same by water from the water container *b*, and it is desired or necessary to place within the lower container *a* a fresh charge of the carbide, the container *a* will be detached from the upper container *b*, and the bail 16 grasped in the fingers of the user of the lamp, and will be swung to its vertical position for the ready imparting thereto, and consequently to the scraper frame, of a turning movement or movements which will result in the freeing from the interior walls of the container *b* of any and all adhering portions of the used or exhausted carbide so that the same may be readily discharged or removed therefrom.

From the foregoing, it will be readily understood that, while a preferred embodiment of the attachment has been described and illustrated herein in specific terms and details of construction and arrangement, various changes in and modifications of the same may be resorted to without departing from the spirit of the invention, or the scope of the claims appended hereto.

Having thus fully described the invention, what is claimed, is:—

1. A scraper device for the carbide chamber of acetylene gas generators comprising a frame formed of a pair of oppositely disposed sections, each including a horizontal and a vertical leg, said vertical legs con-

forming to the shape of the carbide chamber and said horizontal legs arranged in superposed relation and detachably connected together, and a handle element in the form of a bail pivotally connected to the upper ends of said vertical legs.

2. A scraper device for the carbide chamber of acetylene gas generators comprising a frame formed of a pair of oppositely disposed sections, each including a horizontal and a vertical leg, said vertical legs conforming to the shape of the carbide chamber and said horizontal legs arranged in superposed relation and detachably connected together, and a handle element in the form of a bail pivotally connected to the upper ends of said vertical legs, one of said horizontal legs of greater length than the other and extending to the vertical leg from which projects the shorter horizontal leg.

3. A scraper device for the carbide chamber of acetylene gas generators comprising a frame formed of a pair of oppositely disposed sections each including a horizontal and a vertical leg, each of said vertical legs having its upper portion inset to provide an inwardly extending and upwardly inclined part terminating in a vertically disposed part extending in a plane parallel to the lower portion of said vertical legs, said horizontal legs arranged in superposed relation and detachably connected together, and a handle element in the form of a bail pivotally connected to the vertical parts of the inset upper portions of said vertical legs.

4. A scraper device for the carbide chamber of acetylene gas generators comprising a frame formed of a pair of oppositely disposed sections each including a horizontal and a vertical leg, each of said vertical legs having its upper portion inset to provide an inwardly extending and upwardly inclined part terminating in a vertically disposed part extending in a plane parallel to the lower portion of said vertical legs, said horizontal legs arranged in superposed relation and detachably connected together, and a handle element in the form of a bail pivotally connected to the vertical parts of the inset upper portions of said vertical legs, one of said horizontal legs of greater length than the other and extending to that vertical leg from which extends the shorter horizontal legs.

In testimony whereof, I affix my signature hereto.

GOICHI DATE.