Aug. 8, 1939. L. J. BLUM 2,169,119

BATTERY LIFTER

Filed April 20, 1938

Fig. 1.

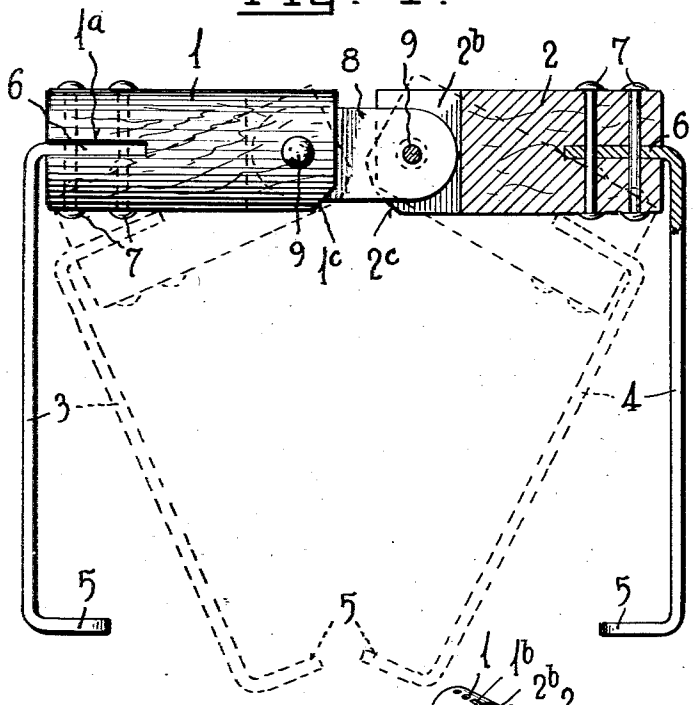


Fig. 2.

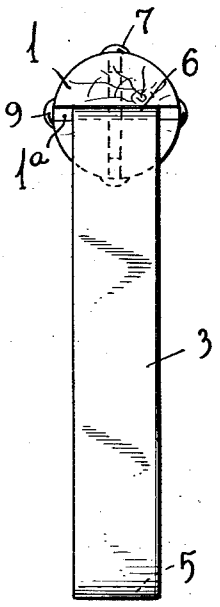
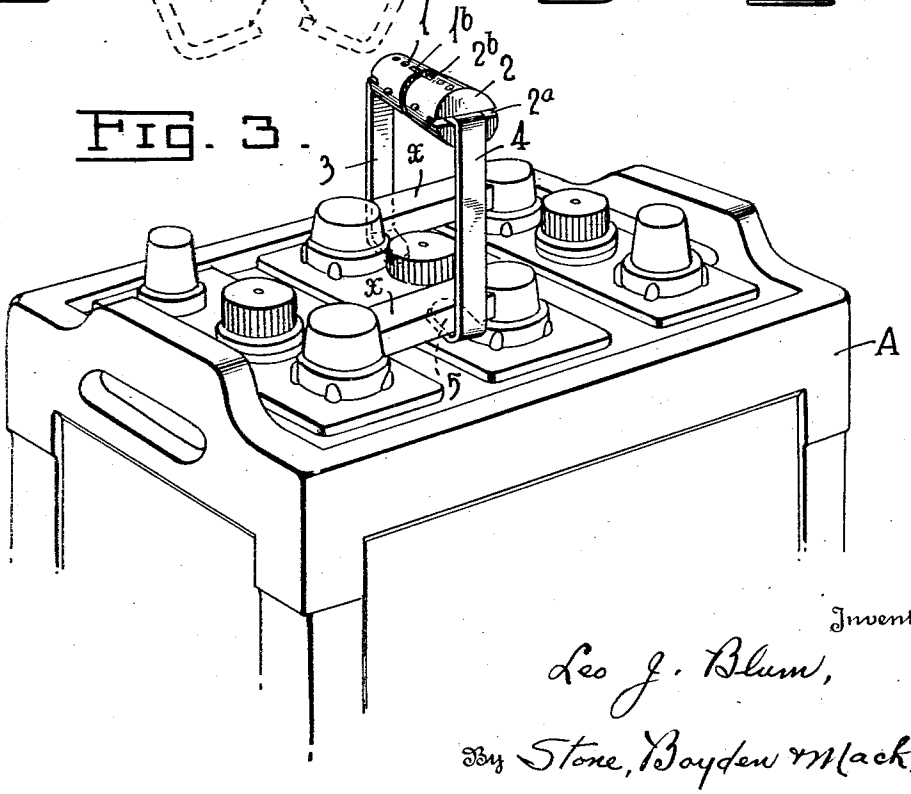


Fig. 3.



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BATTERY LIFTER

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Application April 20, 1938, Serial No. 203,147

1 Claim. (Cl. 16—124)

This invention relates to lifting or handling devices, and more particularly to devices for lifting storage batteries when placing them in or removing them from motor vehicles.

The general object of the invention is to provide a lifter which is adapted to engage under the connector straps of batteries rather than the terminal posts, and which is so constructed that an upward pull on the handle tends to cause the battery engaging hooks to approach each other, thus eliminating the possibility of accidental disengagement.

With the above and other objects in view, and to improve generally on the details of such devices, my invention consists in the construction and combination of parts hereinafter described and claimed, and illustrated in the accompanying drawing, in which—

Fig. 1 is a side elevation of my improved lifter, parts being in section;

Fig. 2 is an end elevation thereof; and

Fig. 3 is a perspective view on a smaller scale, showing how my improved lifter is applied to a battery.

Referring to the drawing in detail, the lifter comprises a handle portion made up of two substantially cylindrical sections 1 and 2, disposed end to end, in relatively close relation.

To the outer ends of the sections 1 and 2 are rigidly secured arms 3 and 4, having their free ends bent inwardly as at 5, to constitute battery engaging hooks. These hook members are preferably in the form of flat straps of metal, as illustrated and are secured to the handle sections 1 and 2 by bending inwardly the upper ends of the straps as indicated at 6 and inserting these bent ends in slots 1^a and 2^a formed in the outer ends of the handle sections, the ends 6 of the straps being permanently secured in the respective slots as by means of rivets 7. It will be seen that the hook arms 3 and 4 extend at substantially right angles to the respective handle sections 1 and 2.

The adjacent ends of the handle sections 1 and 2 are shown as provided with slots 1^b and 2^b, these slots lying in the median plane of the hook members 3 and 4, and a relatively thin flat link 8 has its ends disposed in these slots and is pivotally connected with each handle section by means of a pin or rivet 9.

For practical reasons, and in order to prevent short-circuiting of the battery, the handle sections 1 and 2 are made of insulating material such for example as hard wood, while the other parts may be of metal.

It will be noted that the handle sections 1 and 2 are preferably cylindrical in form and are relatively thick. The link member 8 on the other hand is relatively thin and is also relatively short as compared with the length of the handle sections.

It will be understood that the handle sections 1 and 2 together constitute a grip to be grasped by the hand of the operator, and it will be seen that the link member 8, which maintains the handle sections in closely spaced relation, is enclosed within the contour of the handle sections and thus forms no part of the grip surface.

From the foregoing it will be obvious that when the operator grasps the handle portion formed by the sections 1 and 2, and pulls upwardly thereon, the said sections tend to pivot and to swing downwardly at their outer ends, so that the hook members 3 and 4 tend to assume a position at an acute angle to each other as shown in dotted lines in Fig. 1 and, in extreme cases, the free ends 5 thereof may actually come into substantial contact. To facilitate this, the lower inner corners of the handle sections 1 and 2 are preferably beveled off as shown at 1^c and 2^c respectively.

As shown in Fig. 3, my improved lifter is intended to be applied under the connector straps x of a battery A to be lifted. By virtue of the above described tendency of the hook members to move toward each other when an upward pull is exerted on the handle, it will be seen that once the hooks 5 are engaged under the straps x the weight of the battery tends to cause them to engage still more firmly, so that accidental disengagement is impossible. Furthermore, by reason of the fact that the sections 1 and 2 together constitute a grip surface adapted to be grasped by the hand of the operator, it will be seen that the device can be manipulated with one hand only, and in many cases it is unnecessary for the operator to touch the battery at all with his hands.

It will thus be seen that my improved battery lifter is exceedingly simple and rugged in construction and efficient in operation, and it is thought that the many advantages thereof will be fully appreciated by those skilled in the art without further discussion.

What I claim is:

A battery lifter including a handle portion comprising a pair of relatively thick sections disposed end to end, and together constituting a grip member, a relatively short link member extending longitudinally of and between said sections and to which the adjacent ends of said sections are pivotally connected, said link member being enclosed within the ends of said sections and serving to maintain them in closely spaced relation, the said adjacent ends being, however, spaced sufficiently to allow the outer ends of said sections to swing downwardly into a position at an angle with respect to each other, and a hook member projecting from and rigidly secured to the other end of each section and extending substantially at right angles thereto.

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