

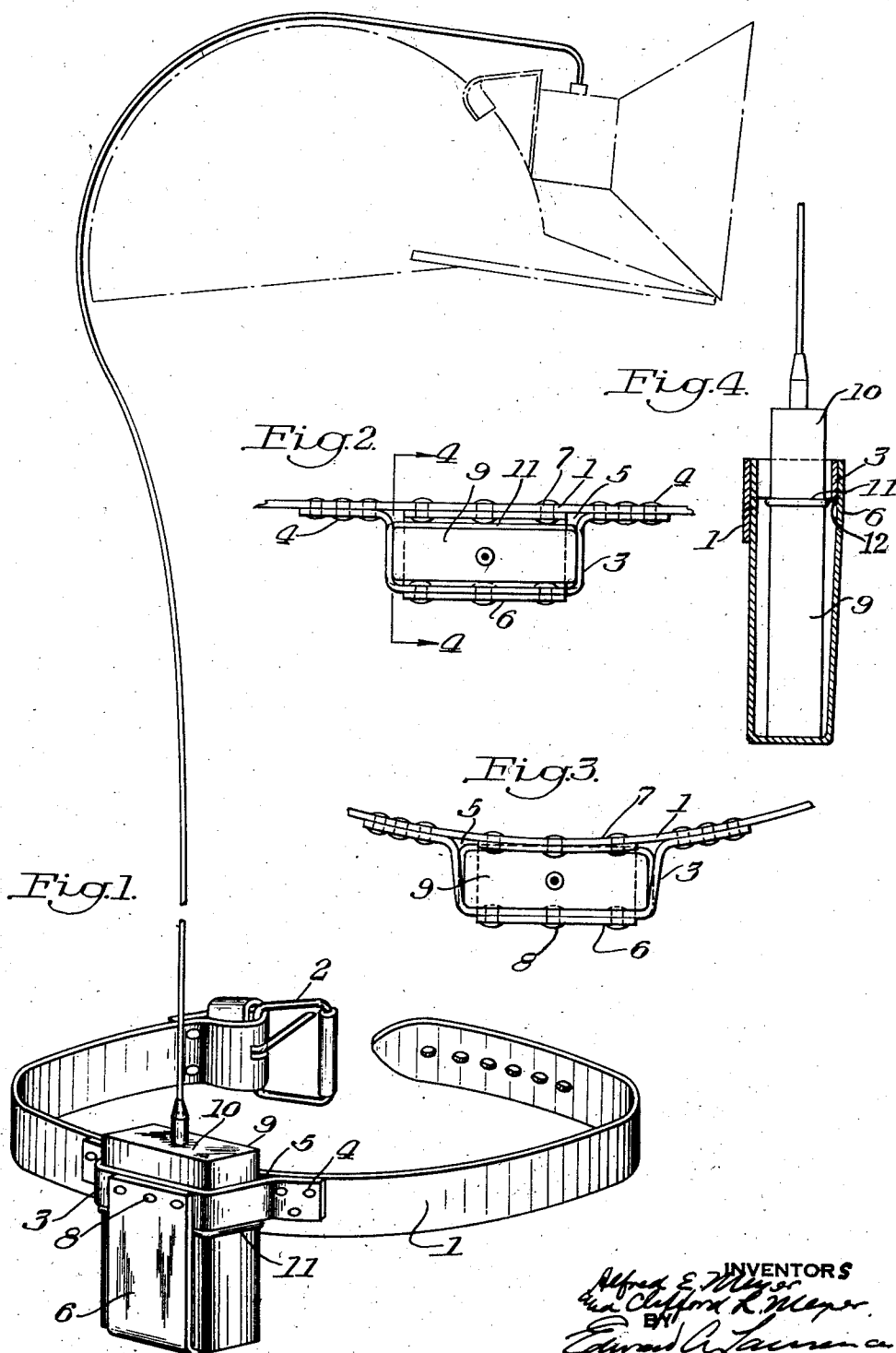
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SAFETY BATTERY-BELT

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SAFETY BATTERY BELT

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1 Claim. (Cl. 224—5)

The invention relates to certain new and useful improvements in body belts provided with means for supporting an electric battery.

In modern mining practice it is customary for the miners to carry electric lamps on their caps, and such lamps are supplied with current from batteries which are usually carried on the miner's belt. Equipment of this character also is employed by other workers in the dark, or in dark places.

Such batteries are provided with containers of approximately four and one-half inches in length, one and one-half inches in width and seven and one-half inches in depth, and the weight of the battery and its container is quite considerable.

A common method of supporting such a battery from a body belt is to provide one face with metal loops or keepers through which are threaded the free end of a strap, one end of which is permanently secured to the exterior of a body belt while the other end may be buckled to the belt, thus strapping the battery to the body belt, usually over the left hip.

In use an electric cable connects the battery to the lamp mounted on the front of the miner's cap and the attachments of the cable to the battery terminals and to the container at one end and to the lamp on the other end are made very strong and are intended to be permanent to prevent the electric connections from becoming loose or open at inopportune times and to avoid corrosion of the terminals.

The cable extends from the battery over the left hip of the workman up along his back to the lamp on the cap, and must be slack to permit freedom of movement of the wearer either in walking or at work as when bending over in mining operations.

Where the battery is strapped to the workman's belt, as above described, or is otherwise mounted on the belt in such a manner that it would require the opening of a closure or other manual operation to release the battery, a type of accident frequently occurs wherein the cable becomes caught on a projection or some object in a mine or tunnel, lifting the wearer from a moving vehicle and suspending him in the air, and not infrequently resulting in death or serious injury. When suspended in this manner it is impossible for the wearer to unbuckle and thus free himself. In such instances generally the hat is lifted from the wearer's head but in case it catches on the obstruction the wearer remains suspended unless the battery is released from the belt.

The principal object of this invention is the

provision of a safety battery-belt which will permit, under the conditions above mentioned, the battery to detach itself from the belt with the result that assemblage of the battery, cap and connecting cable is released from the body of the wearer.

However it is not feasible simply to place the battery in an open pocket from which it may readily be lifted or may slip or drop out of the pocket when the wearer bends over. Therefore another object of the invention is the provision of means for retarding the withdrawal of the battery from the belt pocket except when a substantial tug or pull is exerted on the cable.

Another object is the provision of a belt pocket for the battery so constructed and arranged that when the belt is clasped around the body of the wearer the pocket is contracted to grasp the battery container and prevent the latter being withdrawn from the pocket too readily. But when the belt is more or less straight the battery container may be readily slipped into or withdrawn from the pocket.

The foregoing objects are attained by the structure hereinafter described and claimed and other objects and advantages appear in the following specification.

In the accompanying drawing a practical embodiment illustrating the principles of this invention is shown, wherein:

Fig. 1 is a perspective view of the safety battery-belt showing a battery container secured within the pocket on the belt, the wearer's cap, the lamp, and the cable.

Fig. 2 is a plan view of the battery pocket with the belt straightened, the ends of the belt broken away.

Fig. 3 is a view similar to Fig. 2 but with the belt curved as when applied to the body of a wearer.

Fig. 4 is a sectional view taken along the line 4—4 of Fig. 2.

Referring to the drawing, 1 represents a belt arranged to be secured about the body of a wearer, as by means of a buckle 2. A flexible strap 3, which preferably is materially narrower in width than the belt 1, is disposed longitudinally of the belt and is secured at each of its ends to the belt by any suitable means, as by riveting, as indicated at 4.

It is preferable to mount the strap 3 with its top edge flush with the top edge of the belt 1. In this position it is not readily damaged and it has the full protection of the belt when an article is inserted in the pocket hereinafter described.

The strap 3 is shaped or bent intermediate of its ends to form a substantial rectangular opening or throat, as indicated at 5 in Fig. 2.

A second strap 6 which preferably is materially wider than the strap 3 and the belt 1 is secured at one of its ends to the belt 1 intermediate of the positions at which the strap 3 is secured to the belt, as indicated at 7. The strap 6 extends downwardly below the lower edge of the belt 1 and then extends forwardly and then upwardly and lies against the outer face of the intermediate portion 8 of the strap 3 and is secured thereto.

The straps 3 and 6 thus constitute a pocket for receiving the battery container 9. When the belt 1 is straightened the throat of the pocket is fully open, as shown in Fig. 2, and the battery container 9 may be readily slipped into the pocket and will be supported at the bottom by the strap 6.

The lower edge of the lid 10 of the battery container 9 is conventionally provided with a circumferential stiffening bead 11. The depth of the pocket which is determined by the strap 6 is sufficient to permit the bead 11 of the container 9 to descend below the lower edge of the strap 3, as illustrated in Fig. 4.

Thus when the battery container is positioned within the pocket formed by the two straps 3 and 6, which are disposed at right angles to one another, and the belt is curved and secured about the person of a wearer, the throat 5 of the pocket, formed by the strap 3, is contracted. The curvature of the belt causes the ends of the strap 3 to pull and to contract the throat 5 and the lid 10 of the container just above the bead 11 is grasped, thus holding the container within the pocket under normal conditions.

Again the curvature of the belt serves to bring the internal shoulder 12, formed by the lower edge of the strap 3, into engagement with the container above the bead 11, thereby preventing

the container from slipping out of the pocket of the wearer when the latter sits down or stoops, as he frequently would in work about a mine.

It is evident that there should be a certain amount of flexibility in the straps 3 and 6 to permit the throat of the pocket to contract and expand as above described, and therefore either leather, rubber, textile or flexible metal should be employed as material for the straps. While the pocket is illustrated as formed by two separate straps 3 and 6, it is quite evident that a T-shaped strap may be cut from a piece of material and employed to form the pocket, the head of the T functioning as the strap 3 while the stem of the T would be bent up and function as the strap 6, and a suitable shoulder or projection would be provided in the interior of the pocket to function as the shoulder 12.

We claim:

20 A device for carrying a battery container having a perimetral bead spaced from the top thereof, which consists of a belt arranged to encircle the wearer, a horizontally disposed strap having its ends secured to the outer surface of the belt, the intermediate portion of the strap being spaced
25 outwardly from the belt to form the opening of a pocket, and a vertically disposed strap having one end secured to the outer surface of the intermediate portion of the horizontal strap and the other end secured to the corresponding position
30 on the belt, the intermediate portion of the vertical strap depending below the horizontal strap to complete the pocket, and the shoulder formed by the lower edge of the intermediate portion of the horizontal strap being arranged to seat on the bead of the container in the pocket, the intermediate portion of the strap being of such
35 length that when the belt is buckled about the waist of the user such portion of the strap will be taut about the container above the bead.

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