

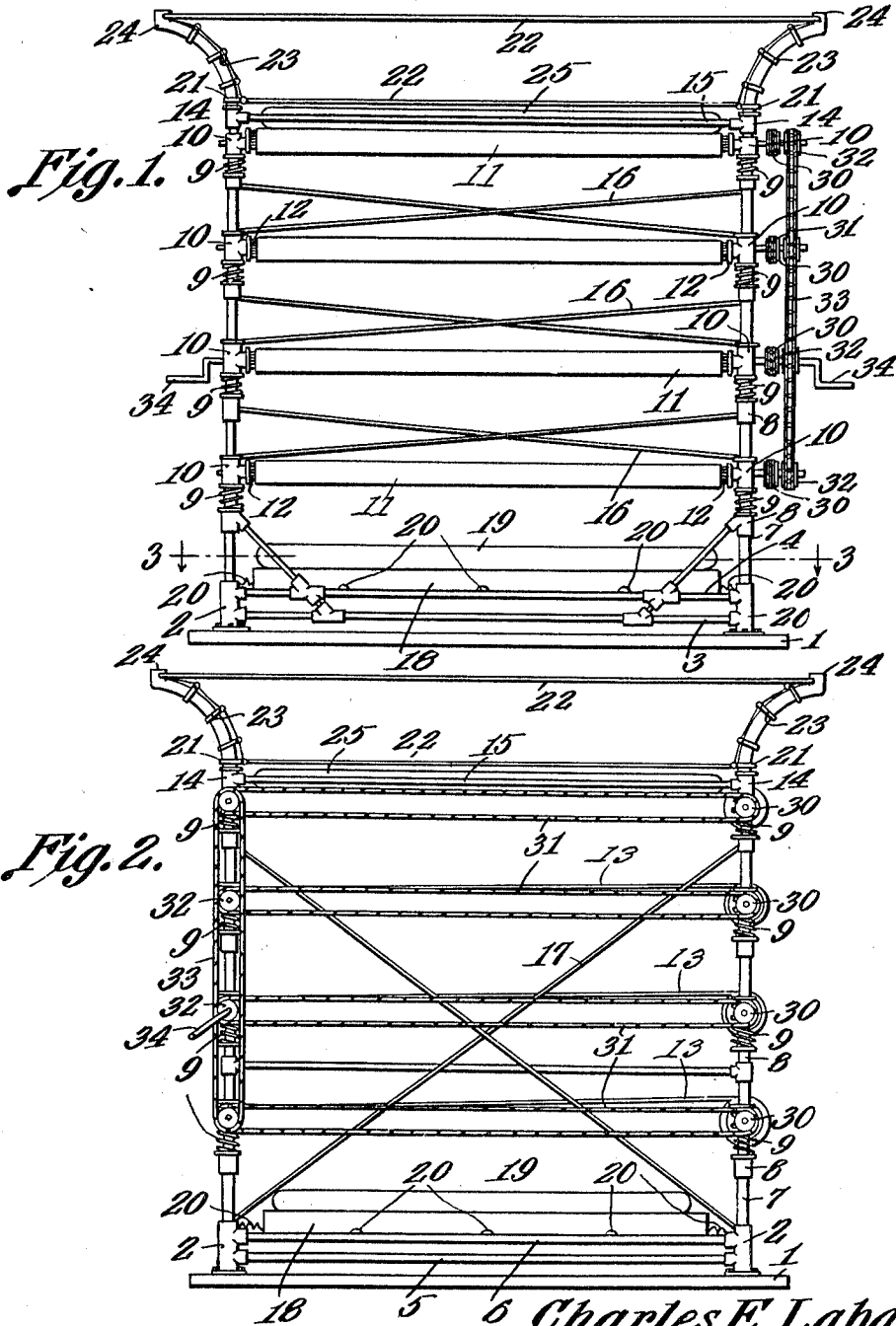
C. E. LABADY.
BODY CATCHER.

APPLICATION FILED JAN. 31, 1913.

1,088,826.

Patented Mar. 3, 1914.

2 SHEETS—SHEET 1.



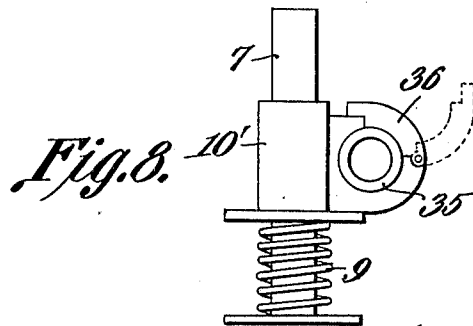
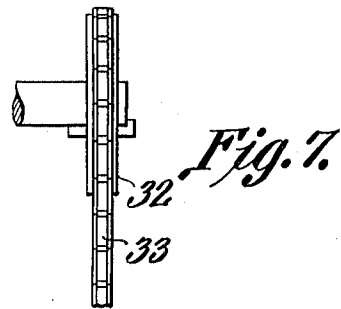
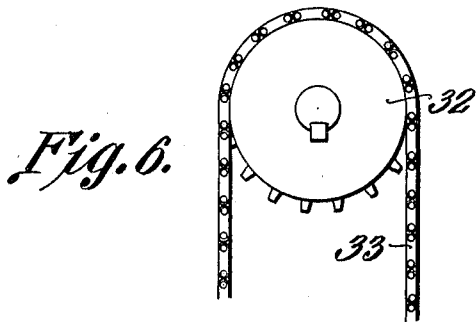
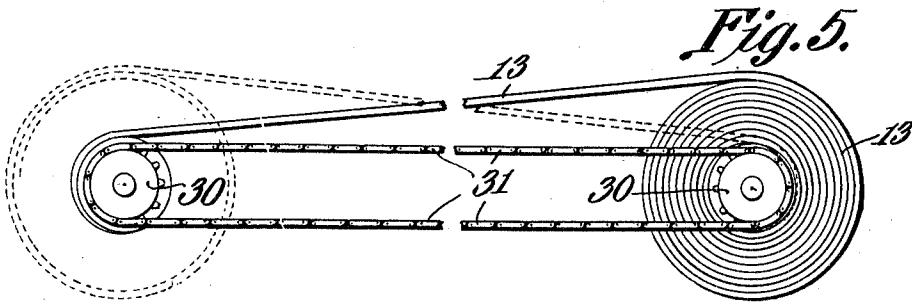
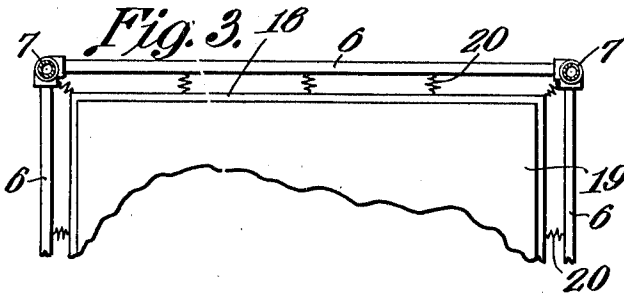
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J. P. Goulet
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UNITED STATES PATENT OFFICE.

CHARLES E. LABADY, OF MICHIGAN CITY, INDIANA, ASSIGNOR OF ONE-THIRD TO ANNIE HANSON, OF MICHIGAN CITY, INDIANA.

BODY-CATCHER.

1,088,826.

Specification of Letters Patent.

Patented Mar. 3, 1914.

Application filed January 31, 1913. Serial No. 745,514.

To all whom it may concern:

Be it known that I, CHARLES E. LABADY, a citizen of the United States, residing at Michigan City, in the county of Laporte and State of Indiana, have invented a new and useful Body-Catcher, of which the following is a specification.

The present invention relates to improvements in body catchers, the primary object of the invention being the provision of an apparatus adapted to receive persons jumping or falling from a burning structure, and to so cushion and retard the fall, as to destroy the inertia and bring the falling body or bodies to rest without in any way injuring them.

A further object of the present invention is the provision of an apparatus provided with a series of interposed cushioning and fall breaking mechanisms, combined with a suitable supporting frame, which may be of various dimensions and heights according to the use to which it is put, and may be mounted upon an automobile truck or horse drawn vehicle.

A still further object of this invention is the provision of a frame, carrying at its upper end an enlarged or flaring top made of flexible material and having disposed therebelow a removable or replaceable pneumatic cushion, which is supported upon a yielding and spring actuated material, said frame carrying a plurality of superposed spring supported fabric, whereby the falling body will be cushionedly received, and the fall gradually retarded so as to bring the body to the point of rest with comparatively no jar.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is an end elevation of the completed device. Fig. 2 is a side elevation thereof. Fig. 3 is a cross section of one side of the frame taken on line 3—3 of Fig. 1. Fig. 4 is an enlarged

detail sectional view through a portion of the canvas strip showing the reinforcement wire therein. Fig. 5 is an enlarged detail view illustrating the passage of the canvas strip from the main roll to the take-up roll, dotted lines illustrating the position when the canvas has been entirely used and before removal thereof from the fire escape. Figs. 6 and 7 are detail views of the sprocket and chain mechanism for operating the roller carrying the canvas. Fig. 8 is a detail modification showing a journal for permitting the easy removal of the rollers for replenishing.

Referring to the drawings, the numeral 1 designates the base or truck body for supporting the life saving device, and has connected thereto, the supporting feet 2, in this instance there being four in number, and connected to these respective supporting feet are the pairs of parallel rods 3 and 4, and 5 and 6, arranged at the respective ends of the apparatus.

Projecting upwardly and carried by the respective feet 2 are the four vertical uprights or standards 7, which are preferably made tubular and have connected thereto at predetermined points, the rigid flanged collars 8, providing abutments for the coiled springs 9, as clearly shown in Figs. 1 and 2, and slidably mounted upon the said standards or supports 7, and resting cushionedly upon the said springs 9, are the sleeves 10, which are arranged in pairs and have journaled thereto the rollers 11, which are disposed to operate in pairs to hold the strips 13 of flexible material, as canvas. These rollers are held against unwinding when receiving an object by the pawl and ratchets 12, at their respective ends, the chains 31 and sprockets 30 connecting each pair of rollers 11 for simultaneous movement to cause the feeding of the strips 13, the purpose of which will presently appear. One of the rollers 11 of each pair is a supply roller while both when the strip 13 is in proper position, are locked against rotation by the pawls and ratchets 12, so as to hold the strip 13 disposed within the frame in a taut position. The strips 13, which as before stated, are made of canvas, have their selvages reinforced with strands of wire as at 13', Fig. 4. In order to hold the upper ends of the supports 7 properly spaced and

in rigid position with relation to each other, the couplings 14 are connected to the respective posts and the brace rods 15 are connected to these couplings and thereby hold or retain the said rods or posts 8 in the proper relation to each other. As noted in Fig. 2, the brace rods 17 are farther apart than the brace rods 16 as noted in Fig. 1, the purpose being to permit the passage of the party rescued readily from the side of the apparatus. It will thus be seen that the various yieldably and cushion strips 13 of canvas are mounted upon rolls 11 and are held stretched, so that when struck, and if the resistance be great enough, are punctured, by a falling body, said strips will be slightly cushioned by means of the springs 9, thereby offering less resistance to the falling body than would be the case, if the rollers were journaled in a solid non-giving journal.

As clearly shown in Figs. 1, 2, 5, 6 and 7, the respective pairs of rollers have removably keyed upon their respective ends, the inner sprockets 30 connected in pairs for simultaneous operation and the horizontally disposed sprocket chains 31, while upon the outer ends of one vertically alined roll of each pair, is removably keyed a sprocket 32, connected for simultaneous movement by a sprocket chain 33, the handle or crank 34 forming a means to rotate all of said rollers and thereby simultaneously feed all the strips of canvas from the supply to the waste rolls of each pair. This particular construction is clearly shown in detail in Fig. 5, where the feed roll containing the canvas is shown in the position just referred to, dotted lines indicating the waste roll when filled and ready to be removed. As shown in Fig. 8, a sleeve 10' is provided with a lug 35 formed integral or rigid therewith and is provided with a hinged member 36, whereby the rolls may be removed without dismantling the sprockets. It will thus be seen that as the canvas 13 is torn by a person falling thereupon, that the crank 34 may be operated rotating all of the rolls and feeding the torn fabric upon the waste rolls of each pair, thus presenting an unused strip of the same across the space within the frame; and further that by reason of the removable mounting of the said rollers, the canvas may be renewed and placed in proper position when necessary.

Mounted in the lower part of the framework and above the base 1 attached to the springs 20 is a mattress 18, of heavy canvas and which carries the air mattress 19 removably thereupon, the springs 20 as clearly illustrated in Fig. 3, properly supporting the canvas mattress 18 to provide a proper cushion about the falling body.

Pivotaly connected to the upper end of

each post 7, so as to swing inwardly and thereby reduce the width of the apparatus, are the curved arms 21, which form a means for receiving and holding the canvas receptacle 22. This receptacle 22 is connected by rings 23 and the terminal 24 to the said curved arms 21, and when the arms are in the position to be used, the said canvas 22 is stretched to assume the position as clearly shown in Figs. 1 and 2, and thereby produces a flared top or guiding means for the upper open end of the apparatus and gives a greater area for directing the falling body to the air cushion 25, carried by the upper layer or strip of canvas 13. It will thus be seen that should the upper layer of canvas 13 carrying the cushion 25 offer sufficient resistance to break and stop the fall of the body, the succeeding strips 13 will act gradually and in succession upon the falling body, the said strips being of such material that the same will readily puncture without giving or causing the rotation of the rolls 11 and finally forming a means whereby the air cushion 25 will form an envelop about the body before the fall is finally broken by the lower air cushion 19.

It is evident that an apparatus of this character may be constructed in various sections, both as to height, width and depth and that the sections may be connected adjustably together so as to attain any height desired, and permit the same to be detached for shipment, transportation and storage, or to be placed in operable position upon the body of a vehicle.

What is claimed is:

1. A body catcher, including a base, a frame mounted thereon, a series of rollers arranged in pairs and mounted within the frame, a plurality of strips of flexible puncturable material, one strip connected to each pair of rollers to be wound upon one roller and off of the other roller, one of said rollers being a supply roller, said strips providing a series of superposed fall retarding means within the frame.

2. A body catcher, including a base, a frame mounted therein, a pair of spring cushioned rollers mounted within the frame, a strip of flexible material wound upon both rollers and stretched between the rollers within the frame, one of said rollers being a receiving roller and the other a supply roller, and means for locking the rollers to hold the strips taut.

3. A body catcher, including a base, a frame mounted therein, a pair of spring cushioned rollers mounted within the frame, a strip of flexible material wound upon both rollers and stretched between the rollers within the frame, one of said rollers being a receiving roller and the other a supply roller, means for locking the rollers to hold the strips taut, and means for rotating the

rollers simultaneously to wind the strip upon the receiving roller and to unwind it from the supply roller.

4. A body catcher, including a base, four tubular uprights mounted thereupon, braces connecting said uprights to maintain them relatively to each other, a plurality of flanged collars connected to the uprights, a spring surrounding the upright and engaging the flange of each flanged collar, a sleeve surrounding the standard, one to each spring, said springs resiliently supporting the latter sleeve, each of said latter sleeves being provided with a shaft journaling portion, a plurality of rollers, one roller to each alined pair of sleeves journaled in the sleeves and resiliently supported by the springs, a plurality of strips of flexible puncturable material, one strip connected to each pair of rollers to be wound upon one and off of the other roller, and means for locking the roll-

ers of each pair against accidental rotation and for holding the flexible material taut.

5. A body catcher, having a base, a frame, superposed rollers arranged in pairs within the frame, a strip of canvas carried by each pair and at superposed intervals within the frame, means for rotating said rollers simultaneously to unroll the canvas from one roller and upon the other to suspend a new portion of the canvas between the rollers, and means to lock said rollers against rotation and hold the canvas stretched between the rollers.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES E. LABADY.

Witnesses:

TITUS L. PECK,
JAMES HERR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."