

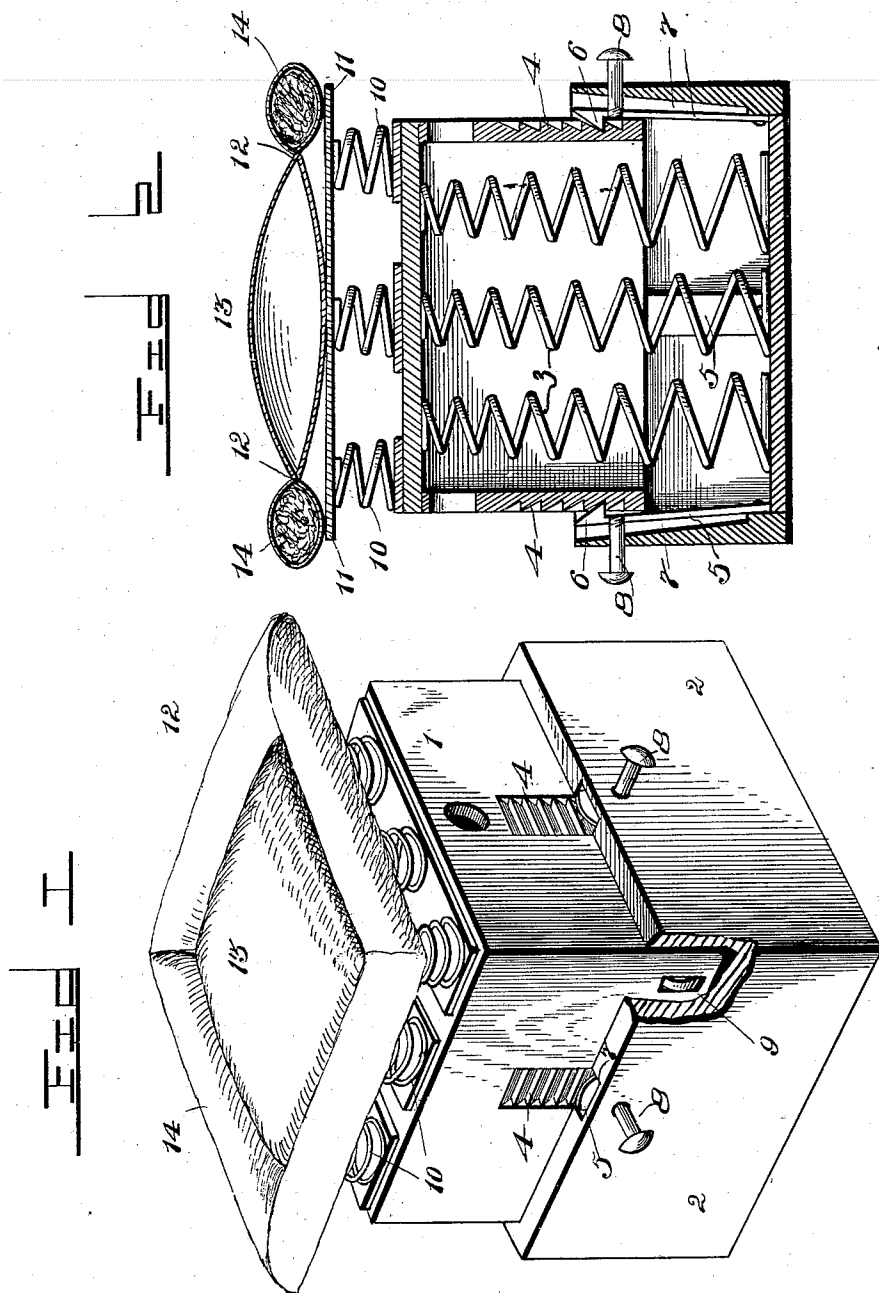
No. 650,310.

Patented May 22, 1900.

W. A. DUNNING.
LIFE SAVING DEVICE.

(Application filed Oct. 16, 1899.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM A. DUNNING, OF HENNESSEY, OKLAHOMA TERRITORY.

LIFE-SAVING DEVICE.

SPECIFICATION forming part of Letters Patent No. 650,310, dated May 22, 1900.

Application filed October 16, 1899. Serial No. 733,813. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. DUNNING, a citizen of the United States, residing at Hennessey, in the county of Kingfisher, Oklahoma Territory, have invented a new and useful Life-Saving Device, of which the following is a specification.

The invention relates to improvements in life-saving devices.

One object of the present invention is to provide a simple and comparatively-inexpensive device adapted to form a cushion to provide a safe landing for persons who in case of fire are compelled to jump from the upper stories of buildings; and a further object of the invention is to provide a device of this character which, while affording an efficient cushion, will effectually prevent any recoil, so that a person will not be bounced upward by the device.

Another object of the invention is to provide a device of this character which will be portable and adapted to form a portion of firemen's outfits.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a life-saving device constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the same.

Like numerals of reference designate corresponding parts in both figures of the drawings.

1 and 2 designate reversely-arranged upper and lower casings adapted to telescope into each other and having coiled springs 3 of any desired number and strength housed within them and interposed between them to form a cushioning device. The lower section of the casing is composed of sides and a bottom and is open at the top to receive the upper section, which is open at the bottom, being composed of sides and a top, as clearly illustrated in Fig. 2 of the drawings. The upper and lower sections of the casing, which may be constructed of any desired size, are preferably rectangular in horizontal section, and the upper section, which fits within the lower one, is provided at the outer faces of its sides with vertical ratchets 4, preferably formed by

recessing the walls of the casing; but any other form of teeth may be employed. The ratchets have their teeth shouldered at their upper sides and beveled at their lower sides, as clearly illustrated in Fig. 2 of the accompanying drawings, and they are adapted to be engaged by resilient pawls 5, mounted on the walls of the lower or outer section of the casing and secured to the inner faces of the same. The pawls, which are vertical, consist of resilient shanks secured at their lower ends to the lower section of the casing and provided at their upper ends with heads or engaging portions 6 to interlock with the teeth of the ratchets. The heads or engaging portions 6 of the pawls are beveled at their upper sides and shouldered at their lower sides, whereby they are adapted to permit the ratchet to pass them when the upper section of the casing moves downward by reason of a person jumping upon the device and are capable of interlocking with the ratchets and engaging the teeth thereof to prevent any upward or rebound movement of the upper section of the casing, thereby effectually taking up all the recoil. The walls of the lower section of the casing are provided at their inner faces with vertical grooves 7, arranged to receive the pawls to permit the same to be disengaged from the ratchet, and the said pawls are provided with stems 8, extending through perforations of the lower section of the casing and having suitable heads or grips at their outer ends, whereby the pawls may be readily drawn outward to disengage them from the ratchets.

In order to enable the upper section of the casing to move freely and frictionlessly in the lower section of the casing, it is provided with antifriction wheels or rollers 9, preferably located at the corners of the upper section of the casing, near the bottom thereof, and adapted to engage the inner faces of the walls of the lower section of the casing.

The upper section of the casing has coiled springs 10 mounted upon it and arranged in rows, as clearly illustrated in Fig. 1 of the accompanying drawings, and supporting a platform 11, upon which is mounted a cushion 12. The platform 11 is rectangular, and the cushion 12 preferably consists of a central pneumatic portion 13 and marginal portions 14,

which may be either pneumatic or padded with a suitable filling.

The invention has the following advantages: The device, which is simple and comparatively inexpensive in construction, is portable. It is adapted to be conveniently carried by a fire company, and it is capable of forming a yielding cushion for preventing persons who are compelled to jump from the upper stories of buildings from being injured. The cushioning-springs are arranged above and below the top of the upper section and form a cushion of great elasticity, and while the cushion is adapted to yield to prevent a person from injuring himself it is automatically locked against any recoil or rebound movement. The movement of the upper section of the casing within the lower section is frictionless, and the pawls are readily disengaged from the ratchets to reset the device.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. A device of the class described comprising the lower section of the casing composed of sides, and a bottom, and open at the top, the upper section of the casing telescoping into the lower section and composed of sides and a top, cushioning-springs housed within the casing and interposed between the top of the upper section and the bottom of the lower section, and a cushion supported by the upper section of the casing, substantially as described.

2. A device of the class described comprising the lower section of the casing composed of sides, and a bottom, and open at the top, the upper section of the casing telescoping into the lower section and composed of sides and a top, said upper section being provided

on its exterior with vertical racks or ratchets, and resilient pawls mounted in grooves of the lower section of the casing and interposed between the same and the other section and adapted to engage the ratchets or racks, substantially as described.

3. A device of the class described comprising the lower section of the casing composed of a bottom and sides provided at their inner faces with vertical grooves, the upper section of the casing telescoping into the lower section and composed of a top and sides provided on their exteriors with vertical ratchets located opposite the said grooves, cushioning-springs interposed between the bottom of the lower section and the top of the upper section, and resilient pawls housed within the grooves of the lower section and engaging the ratchets of the upper section and having handles or stems extending through the lower section and adapted to be operated from the exterior thereof, substantially as described.

4. A device of the class described comprising the lower section of the casing composed of a bottom and sides having interior vertical grooves, the top section of the casing composed of a top and sides provided with vertical ratchets located opposite the said grooves, antifriction-wheels mounted on the upper section of the casing and engaging the inner faces of the walls of the lower section, resilient pawls housed within the grooves of the lower section and engaging the ratchets of the upper section, and means for operating the pawls from the exterior of the casing, substantially as described.

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

WILLIAM A. DUNNING.

Witnesses:

M. EANES,

GEO. W. BEAR.