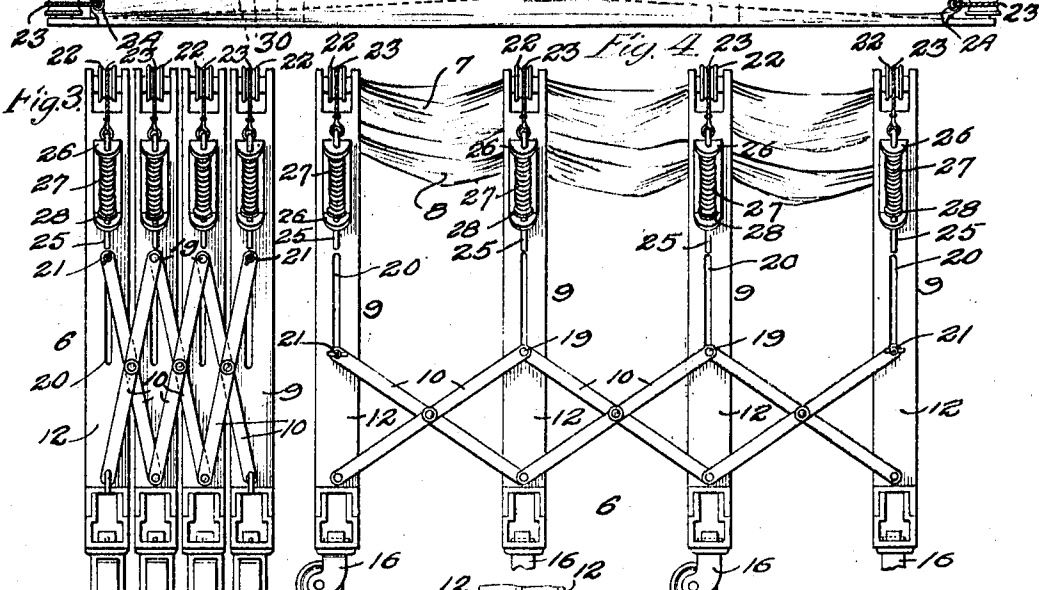
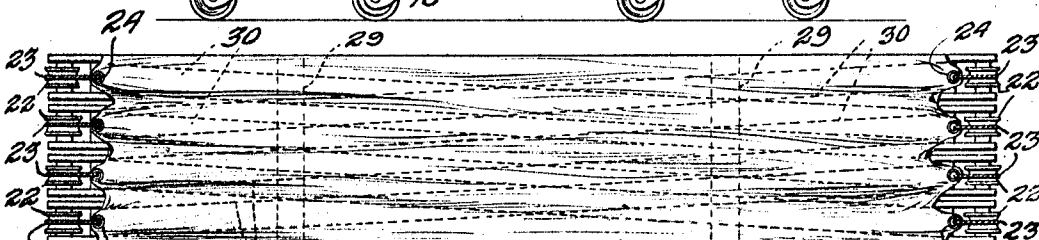
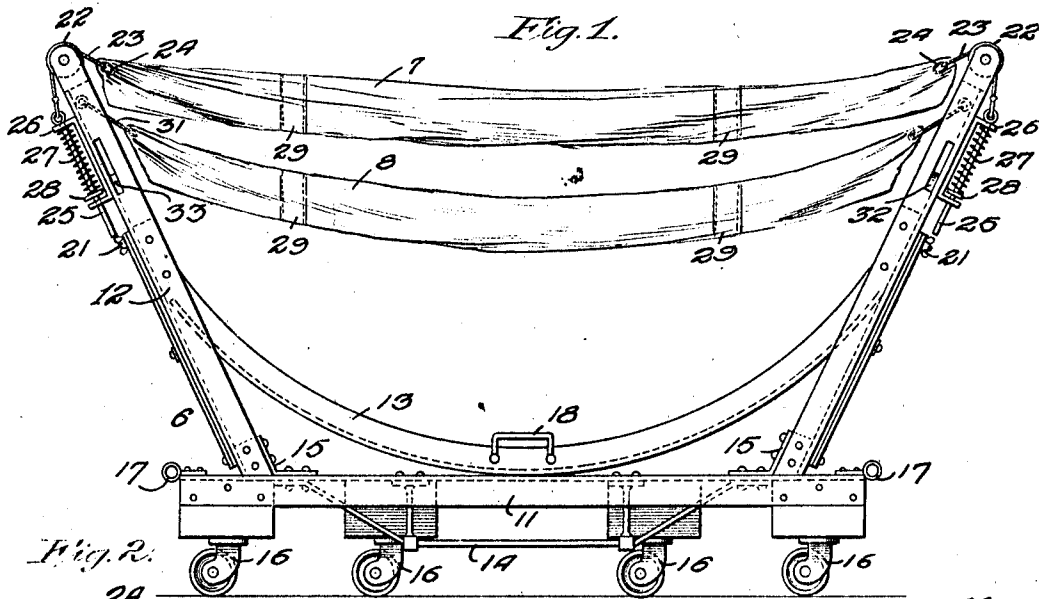


M. UNGÁR.
LIFE SAVING NET.
APPLICATION FILED JUNE 30, 1911.

1,021,280.

Patented Mar. 26, 1912.



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MARTIN UNGÁR, OF CHICAGO, ILLINOIS.

LIFE-SAVING NET.

1,021,280.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MARTIN UNGÁR, a subject of the Emperor of Austria-Hungary, residing at 1537 Haddon avenue, Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Life-Saving Nets, of which the following is a specification.

My present invention relates to life saving nets in which a suitable support is provided to rest upon the ground and which carries a net adapted to form a safe landing for a person, or persons escaping from burning buildings or places of danger by descending through the open.

The objects of my invention are, to provide a support which may be drawn together in order to provide a compact structure when not in use; to so construct the base structure that the suddenly applied loads subjected thereto are taken up by truss-like members which are ever rigid and consequently cannot become dislocated in the folding of the device; to provide a spring means adapted to take up the impact resulting from the contact of the falling person with the net, and to provide a supplementary net below the main net as a final resort for providing a safe landing for the person or persons falling.

Further objects of my invention will be pointed out in the following detailed description, taken in connection with the accompanying drawing, in which,—

Figure 1 is a side elevation of my invention. Fig. 2 is a top plan view of the same closed. Fig. 3 is an end elevation of the device as shown in Fig. 2. Fig. 4 is a similar view to Fig. 3, the device being extended. Fig. 5 is a detail view of a coupling means.

Similar characters refer to similar parts throughout the views.

Generally, my invention comprises a base structure 6 which forms a support for nets 7 and 8, the former of which nets is adapted to "give" through suitable spring action, while the latter is a supplementary net rigidly secured to the base structure.

The base structure 6 is made up of a plurality of U-shaped structures 9 held together by lazy-tong levers 10, which permit the base structure to be extended or drawn together to form a compact article when not in use.

The U-shaped structures 9 are preferably

built up of rolled steel sections, although iron castings may be used where expedient, and comprises a main base member 11, preferably a channel section, uprights 12, an inverted arch member 13 having its crown resting upon the member 11 and its ends secured to the uprights 12, thus resisting inward movement of the members 12 by transmission of the forces to the base member 11, and a tie-rod 14 resisting deflection of the base member 11. The uprights 12 are secured to the base member 11 by angle clips 15.

The base member is provided with a plurality of casters 16, preferably of the ball-bearing type, by which the apparatus may be drawn from place to place. To facilitate such movement, rings 17 are secured to the base structure which provide a fastening means for ropes, chains or the harness of horses. A handle 18 is also secured at both sides of the structure to provide convenient means for extending the sections or closing the same.

The pivot means 19 of the upper ends of the lazy-tong levers work in guide slots 20 of the uprights 9, the end levers being provided with thumb nuts 21 by which the base may be held in an extended or contracted position.

As a resilient connection between the net 7 and the base structure 6, each section 9 is provided with sheaves 22, carried at the upper end of the uprights 12 thereof, over each of which is trained a rope or cable 23, secured at one end to the net 7 at the eye 24, and at the other end to the eye terminal of a plunger 25. This plunger 25 works in a U-shaped bracket 26 and confines a compression spring 27 between the collar 28 of the plunger and the upper leg of the bracket 26. By this construction it will be seen that the impact upon the net is taken up by the springs 27.

The nets may be reinforced transversely and longitudinally by strips as indicated at 29 and 30 respectively.

The net 8 is secured to the frame structure by ropes as shown at 31 and forms a net supplementing the net 7 after the latter has taken up the greater part of the force subjected to the structure.

As a means for forming a relatively long net surface, as might be required where a building of considerable length is on fire, each structure may be provided with a cou-

pling means whereby a number of structures may be rigidly held together in alinement. This coupling means comprising a hook 32 pivoted within the end upright channels 12 at one side and which is adapted to engage a pin 33 carried by the complementary side.

From the above description it is made manifest that I provide a life saving net which may be readily conveyed to places of danger; that when extended, forms a rigid structure capable of withstanding the forces subjected thereto; that may be constructed to a compact structure in order to occupy a minimum space when not in use, and an arrangement whereby a number of structures may be coupled to form a rigid support for a relatively long net surface.

I claim:

1. A life saving net comprising in combination, a plurality of U-shaped structures, a sheave carried at the upper end of each of said U-shaped structures, a net, and means forming resilient connections between each of said U-shaped structures and said net, said means comprising a bracket carried by said upright member, a plunger directed by said bracket and having a collar, a compression spring confined between said collar and said bracket, and a flexible connection between said plunger and said net, and trained over said sheave to direct said plunger in the line of pull of said connection.

2. A life saving net comprising in combination, a plurality of U-shaped structures, a sheave carried at the upper end of each of said U-shaped structures, a net, means forming a resilient connection between each of said U-shaped structures and said net and including a bracket carried by each of said U-shaped structures, a plunger directed by said bracket and having a collar, a compression spring confined between said collar and said bracket, and a flexible connection between said plunger and said net, and trained over said sheave to direct the plun-

ger in the line of pull of said connection, and means for retaining said U-shaped structures in close proximity to each other with the said net in a folded position, or for separating and retaining said structures one from another to draw the said net.

3. A life saving net comprising, a base including a plurality of U-shaped structures, each structure being rigidly formed and arranged in parallel alined relation to each other with respect to their planes, a net carried by said base adjacent to the upper ends of said U-shaped structures, lazy-tong levers operatively connected to said U-shaped structures for positioning the same in relative close proximity, with said net in a folded position to contract the base, or for separating said U-shaped structures one from another for expanding the base and drawing the net, and means for retaining said base in a contracted or expanded position, combined substantially as and for the purpose set forth.

4. In a life saving net, the combination with a base structure and a net therefor, of means, forming a resilient connection between said base structure and net, including a sheave carried by said base structure, a bracket rigidly secured to said base structure, a plunger guided by said bracket, a flexible connection between said net and plunger and trained over said sheave to direct the line of pull upon said flexible connection subjected to forces acting upon said net, and resilient means for normally retaining said plunger in a position permitting movement thereof subject to pull upon said flexible connection to yieldably counteract the forces upon said net.

In testimony whereof I affix my signature in the presence of two witnesses.

MARTIN UNGAR.

Witnesses:

IRWIN D. GROAK,
IRWIN NEWMAN.