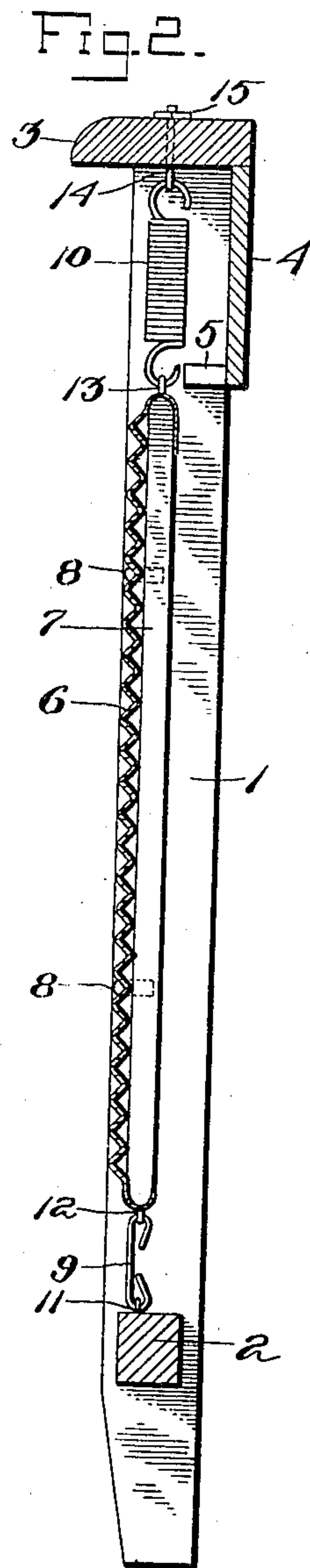
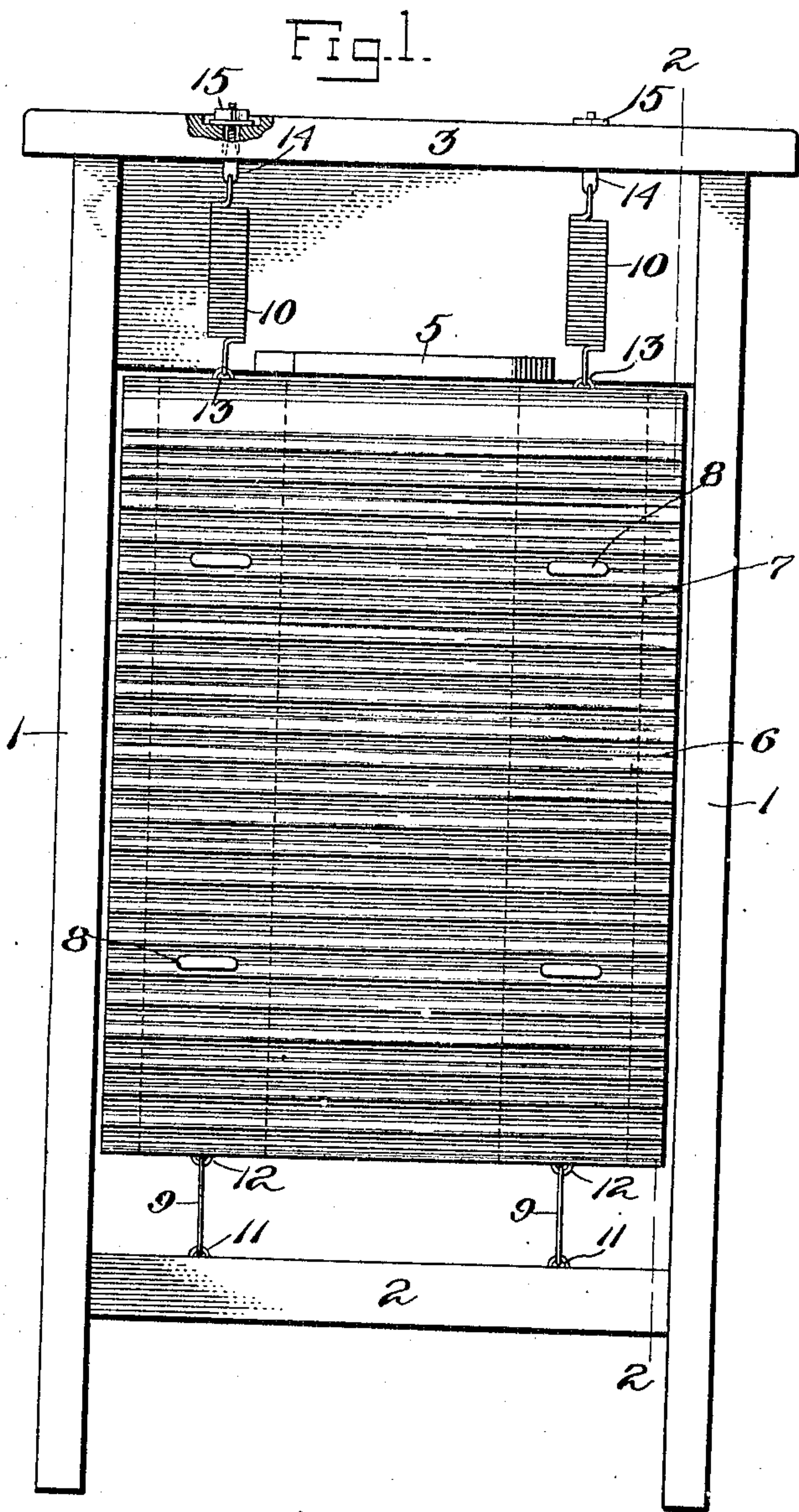


No. 872,308.

PATENTED NOV. 26, 1907.

E. M. SAUNDERS.  
WASHBOARD.

APPLICATION FILED SEPT. 20, 1906.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

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## WASHBOARD.

No. 872,308.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed September 20, 1906. Serial No. 335,358.

*To all whom it may concern:*

Be it known that I, EDWARD M. SAUNDERS, citizen of the United States, and resident of Malden, Middlesex county, Massachusetts, have invented certain new and useful Improvements in Washboards, of which the following is a specification.

The invention relates to wash boards such as are used for general laundry purposes, and its object is to provide a wash board of practical and economical construction in which the rubbing surface is supported to yield under the pressure brought to bear upon it in the rubbing of the clothes in such manner and direction as to effectively relieve the strain and jar upon the arms of the user, reduce the energy consumed, and to also reduce the wear upon the clothes incident to such rubbing, while increasing the efficiency of the rubbing action.

The rubbing surfaces of wash-boards are usually if not always provided with some form of transverse ribs or corrugations and the jar and vibration transmitted to the hands and arms of the user is produced by rubbing of the clothes over these ribs or corrugations. In practicing my invention I relieve and minimize this jar and vibration by so mounting the rubbing board in the frame of the wash-board that it may yield in the direction of the movement of the clothes over the rubbing surface of the board. With the rubbing board thus mounted the shock and jar incident to the movement of the clothes under pressure longitudinally of the rubbing surface of the rubbing board is cushioned and taken up by bodily movement of the board in the direction of the movement of the clothes, the yielding supporting means tending to return the board against the movement of the clothes and thus increase the rubbing action.

The pressure applied to the clothes by the hands and arms of the operator is at an inclination to the rubbing surface and in order to most effectively relieve the jar and vibration imparted to the operator and also to secure the most efficient rubbing action, I prefer to so support the rubbing board in the frame that it may yield rearwardly as well as in the direction of movement of the clothes over the rubbing surface. The bodily movement of the rubbing board in such case will be both rearwardly and longitudinally of the board, the resultant direction of movement depend-

ing upon the angle at which the pressure is applied to the clothes. In other words the rubbing board may yield bodily to effectively cushion the vibrations caused by the clothes passing over the successive ribs or corrugations of the rubbing surface, the yielding movement accommodating itself to the direction in which the pressure is applied to the clothes as they are moved over the rubbing surface.

In embodying the broader features of my invention in a simple and inexpensive construction I have employed certain further features of invention which are of importance in contributing to the simplicity and efficiency of the construction.

In supporting the rubbing board to yield in the manner above specified I prefer to yieldingly suspend the rubbing board within a supporting frame. The specific form of the devices for thus suspending the rubbing board is not essential but I prefer to employ flexible connections between the rubbing board and the frame and to so form or mount the connections at one or both ends of the rubbing board that they may yield in a direction longitudinal of the rubbing board. These yielding flexible connections may be extensible tension devices and I prefer to utilize tension springs for this purpose.

The manner of supporting the rubbing board above referred to is well adapted for supporting rubbing boards of glass or other vitreous or friable material or having rubbing surfaces of such materials, and various features of the invention may be embodied in wash-boards having rubbing boards or rubbing surfaces made from any suitable or desired material.

By yieldingly suspending the rubbing board within a frame a construction is provided which can be readily embodied in a wash-board having either a single or a double faced rubbing board.

The various features of the invention will be set forth in the claims and will be readily understood from the following detailed description of the wash-board shown in the accompanying drawings.

In these drawings—Figure 1 is a front elevation of a wash-board embodying the various features of my invention in the forms in which I prefer to use them; and Fig. 2 is a sectional side view on line 2—2 Fig. 1.

The wash-board shown in the accompany-



ing drawings comprises a supporting frame and a rubbing board supported in the frame to yield in the direction of movement of the clothes over the rubbing board and to also  
5 yield rearwardly under pressure applied to the face of the rubbing board.

The frame consists of the side pieces 1, the transverse bottom piece 2 and the transverse top piece 3, which are secured together in any  
10 suitable manner. A board 4 may be secured to the side pieces 1 just below the top piece 3 and may be provided with a forwardly extending rib 5 for retaining the soap while the wash-board is in use.

15 The rubbing board may be of any suitable construction and may be made from any suitable materials. In the construction shown the rubbing board consists of the corrugated metal plate 6 which is secured to two  
20 longitudinally extending straps 7. The corrugated plate may be secured to the longitudinal straps in any suitable manner as by means of staples such as indicated at 8.

The devices shown for yieldingly supporting  
25 the rubbing board within the frame comprise links 9 and coiled springs 10. The links 9 are connected by means of staples 11 and 12 with the bottom cross piece 2 of the frame and with the lower end of the rubbing board.  
30 These links thus provide one form of flexible connection between the lower end of the rubbing board and the frame. The coiled springs 10 are connected at one end with the upper end of the rubbing board by means of  
35 staples 13 and are connected at the other end with bolts 14 which pass through the upper cross piece 3 of the frame and are provided on their outer end with nuts 15. The springs 10 thus constitute one form of yielding flexi-  
40 ble connection between the upper end of the rubbing board and the frame. These springs also provide a simple and inexpensive form of extensible tension device for connecting the upper end of the rubbing board with the  
45 frame. The tension of these springs may be regulated or adjusted by means of the screws 15 so that they may offer the proper and desired resistance to the rearward and longitudinal movement of the rubbing board.

50 By means of the links 9 and the springs 10 the rubbing board is held suspended within the frame in such manner that it may yield bodily under pressure brought to bear upon it in the rubbing of the clothes. When pres-  
55 sure is applied to the surface of the rubbing

board the flexible connection formed by the links 9 allows the lower end of the board to move rearwardly and downwardly and the flexible connection formed by the springs 10 yields to allow the rearward and downward  
60 movement of the rubbing board, the extent and direction of the movement of the board depending upon the pressure applied to the rubbing surface of the board and the direction in which the pressure is applied. As the  
65 clothes are forced downward over the surface of the rubbing board the springs 10 will yield to cushion the successive blows imparted to the corrugations of the rubbing surface as the clothes pass downward over the surface.  
70 The springs will also tend to return the rubbing board to its normal position and will therefore increase the rubbing action as the clothes are forced over the surface of the board.  
75

While I prefer to embody the various features of my invention in the construction and arrangement shown in the drawings, it will be understood that this construction and arrangement is not essential to various fea-  
80 tures of my invention as set forth in the claims. It will also be understood that it is not essential that a wash-board shall embody all the features of my invention in order to secure advantageous results and that  
85 in embodying the various features of the invention in concrete constructions, various modifications and changes may be made.

Without attempting to set forth in detail the various forms and arrangements in which  
90 my invention may be embodied, what I claim and desire to secure by Letters Patent is:—

1. A wash board comprising a frame, a rigid rubbing board, links connecting one  
95 end of the board with the frame and tension links yieldingly connecting the other end of the board with the frame.

2. A wash board comprising a frame, a rigid rubbing board, flexible connections be-  
100 tween the lower end of the board and the frame, and extensible yielding connections between the upper end of the board and the frame.

In witness whereof, I have hereunto set  
my hand, this 17th day of September 1906.

EDWARD M. SAUNDERS.

In the presence of—

IRA L. FISH,

KATHARINE A. DUGAN.