

Aug. 3, 1954

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2,685,441

FOLD-AWAY CLOTHES HAMPER FOR AUTOMATIC WASHING MACHINES

Filed Sept. 15, 1950

2 Sheets-Sheet 1

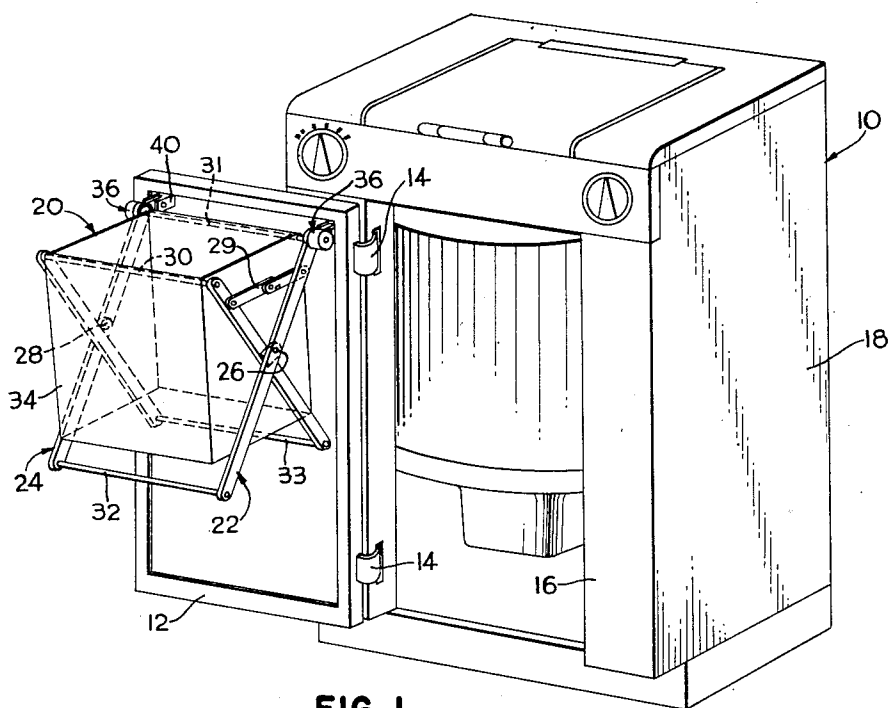


FIG. 1

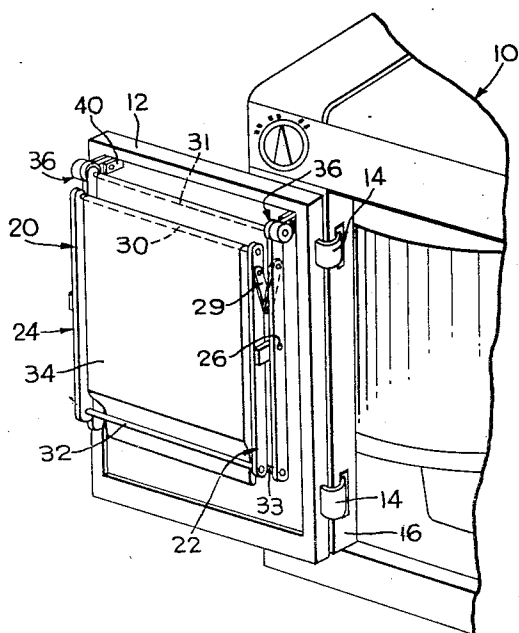


FIG. 2

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2 Sheets-Sheet 2

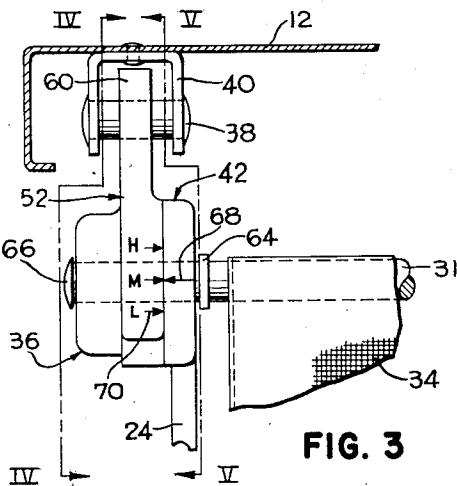


FIG. 3

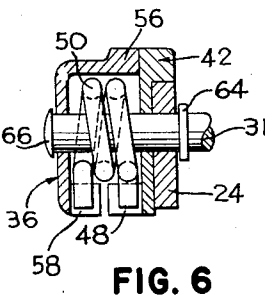


FIG. 6

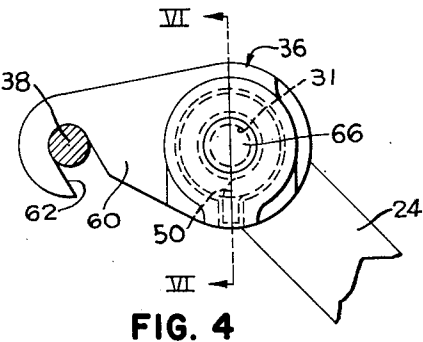


FIG. 4

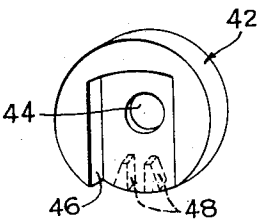


FIG. 7

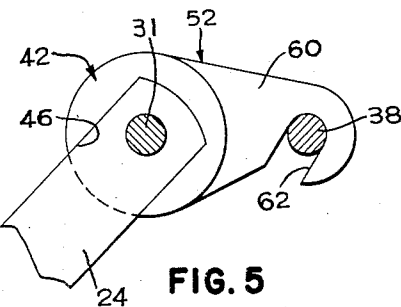


FIG. 5

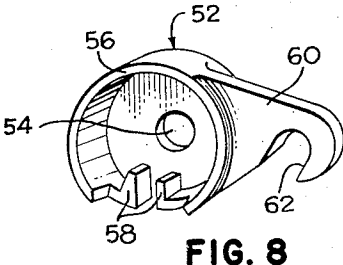


FIG. 8

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2,685,441

FOLD-AWAY CLOTHES HAMPER FOR AUTOMATIC WASHING MACHINES

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Application September 15, 1950, Serial No. 184,995

7 Claims. (Cl. 265-63)

1

This invention relates to a portable fold-away clothes basket for an automatic washing machine or the like, and, more particularly, to a basket which can be used to measure the weight of dirty clothes in making up a washing load.

Although the automatic washer has eliminated the use of the wringer and laundry tubes so that the washing can now be done in the kitchen, it is still necessary to employ some sort of basket for holding the clothes after they are taken from the machine and before hanging them on the line or transferring them into a dryer. The basket is usually placed on a chair or stand while the clothes are unloaded from the machine. Use of the ordinary clothes basket of this type is particularly objectionable in the so-called "efficiency" apartment in which the washer is made part of the kitchen equipment, inasmuch as the basket takes up considerable space when not in use.

It has been found desirable in the use of the automatic washing machine to weigh the load of clothes before the washing operation is begun to prevent overloading of the machine (which results in reduced washing efficiency) or, in the event of light loads, to give the operator a measure whereby the amount of water and soap used for the washing cycle may be adjusted accordingly. Heretofore, it has been proposed to provide a shelf which folds down on the front of the washer to receive a quantity of clothes to be washed, the shelf having an associated indicator for showing when the proper weight of clothes to be washed is placed on the shelf. However, such a shelf cannot be effectively used as a hamper in which the clothes may be transported and stored before or after the washing operation.

It is the general object of the invention to avoid and overcome the foregoing and other difficulties of and objections to prior art practices by the provision of an inexpensive basket or hamper in combination with an automatic washing machine which can be folded and stored out of the way within the cabinet of the washer.

Another object of the invention is to provide a fold-away clothes hamper in combination with an automatic washing machine which can be used to weigh the clothes before they are loaded into the machine.

Another object of the invention is the provision of a fold-away clothes hamper for an automatic washing machine or the like which can be readily detached from the washer for transporting the clothes.

2

Another object of the invention is to provide ready access to the interior of the washing machine cabinet to service the mechanism, valves, or lint collector.

5 The aforesaid objects of the invention, and other objects which will become apparent as the description proceeds, are achieved by providing an automatic washing machine of the top-loading type having a vertically hinged door in the front of the cabinet, a folding clothes hamper detachably hooked to the inside of the door, the folding hamper comprising a flexible bag, a folding frame supporting the bag, and means for hanging the frame on the inside of the washing machine door including a pair of hooks pivotally attached to the frame and hooking onto brackets provided on the inside of the washing machine door, torsional springs opposing rotation of the hooks relative to the frame under the weight of clothes placed in the hamper, means for indicating the angular relation between the hooks and the frame whereby the weight of the clothes in the basket deflecting the torsional springs is directly shown.

25 For a better understanding of the invention, reference should be had to the accompanying drawings, wherein:

Fig. 1 is a perspective view of one embodiment of the invention, showing the clothes hamper in its operative position;

30 Fig. 2 is a fragmentary perspective view showing the clothes hamper in folded position and ready for storage within the washer cabinet;

Fig. 3 is an enlarged fragmentary view partly in section illustrating the method in which the folding basket is secured to the washing machine door;

Fig. 4 is an enlarged fragmentary view taken on line IV-IV of Fig. 3 showing the hook support and associated torsional spring couplings;

40 Fig. 5 is an enlarged fragmentary view partly in section taken on line V-V of Fig. 3;

Fig. 6 is an enlarged fragmentary sectional view taken on line VI-VI of Fig. 4 and showing details of the torsional spring arrangement;

45 Fig. 7 is a perspective view showing the anchor bracket; and

Fig. 8 is a perspective view illustrating the hook member.

50 With specific reference to the form of the invention illustrated in the drawings, the numeral 10 indicates generally an automatic washing machine of the top-loading type having a door 12 secured by hinges 14 in a front panel 16 of the washer cabinet 18. Secured to the inside of the

door is a folding clothes hamper indicated generally at 20, shown in its open position in Fig. 1 and in its folded position in Fig. 2. When in the folded position, the door 12 may be closed, storing the clothes hamper within the cabinet of the washing machine.

The hamper itself has a frame of metal or the like comprising a pair of X-frame members 22 and 24. The individual legs of each X-frame member are pivotally joined at 26 and 28 respectively. The four ends of each X-frame member 22 are connected by spacer rods 30, 31, 32, and 33, to the corresponding ends of the second X-frame member 24. A folding brace 29 is provided between opposing legs of one of the X-frames to hold the hamper in open position. The brace folds in the middle when the hamper is closed up, as shown in Fig. 2. A bag 34, made of flexible material such as canvas or duck, forms the body of the hamper and is suspended from the upper spacer bars 30 and 31.

The hamper 20 is secured to the inside of the door 12 by a pair of spring-loaded hook assemblies 36 secured to the hamper frame at each end of the upper spacer bar 31. The hook assemblies 36 releasably engage the pins 38, which are in turn secured to the door 12 by means of U-shaped brackets 40. The brackets 40 are riveted or otherwise secured to the door 12 at the upper corners thereof.

The hook assembly includes an anchor member 42, having a hole 44 through which the end of the spacer rod 31 is inserted. One face of the anchor member 42 has a slot 46 which engages the frame member 22 or 24 when the anchor member 42 is in assembled position, as shown in Fig. 3. The opposite face of the anchor member 42 has a pair of lugs 48, by means of which one end of a coiled spring 50 is anchored. A hook member 52 having a hole 54 through which the end of the spacer rod 31 is inserted is pivotally supported thereon. The hook member 52 has a cup-like portion 56 which fits over and surrounds the spring 50 and slidably abuts against the anchor member 42. A pair of lugs 58 are integrally formed on the inside of the cup section 52 and engage the other end of the spring 50. The hook member 52 has a projecting lug 60 with an open slot 62 formed in the end thereof, as shown in Fig. 8, whereby the hamper 20 is hung from the pins 38.

A flange 64 is provided on the spacer rod 31 which serves as a shoulder against which the frame member 22 or 24 abuts. After the anchor member 42, spring 50, and hook member 52 are assembled over the projecting end of the spacer rod 31, the end 66 of spacer rod 31 is peened over to secure the hook assembly in position on the ends of the rod 31.

The purpose of the spring loaded hook assembly is to provide an indicating means whereby the weight of the clothes placed in the hamper 20 can be ascertained. The spring 50 normally holds the hook member 52 with its projecting lug 60 at approximately perpendicular relationship with the door 12. As clothing accumulates in the hamper 20, the weight of the clothes produces a moment about the axis of the spacer rod 31 which is resisted by the spring 50. The deflection of the spring 50 is readily measured by the attendant angular rotation of the hook member 52 relative to the anchor member 42. To this end, a pointer 68 is provided on the anchor member 42 opposite a calibrated scale provided on the outer face of the hook member

52 substantially as shown in Fig. 3. For convenience, the scale 70 is marked off to indicate heavy, medium, and light loads.

Thus a convenient arrangement is provided for weighing the load of clothes before it is put into the washing machine. The clothes can be thrown into the hamper as they are sorted out, and when a full weight of dirty clothes accumulates, it will be so indicated on the scale 70. After the laundry cycle is completed, the damp clothes can be placed in the hamper, the hamper can be unhooked from the door, and used to carry the damp clothes either to be hung on the clothesline or transported to a clothes dryer. When the hamper is not in use, it can be folded up and stored out of the way within the cabinet space of the automatic washing machine.

From the foregoing description, it can be seen that the objects of the invention have been achieved by the provision of a compact, portable, fold-away type of clothes hamper which can be used in combination with an automatic washing machine, and which provides a ready means of measuring out the correct weight of dirty clothes for making up a wash load.

While in accordance with the patent statutes, one best known embodiment of the invention has been illustrated and described in detail, it is to be particularly understood that the invention is not limited thereto or thereby, but that the inventive scope is defined in the appended claims.

I claim:

1. A clothes hamper for combination with a washing machine or the like, which clothes hamper comprises a folding clothes basket comprising a flexible bag, a folding frame supporting said bag, and means for hanging the frame from a support including a pair of hooks pivotally attached to the frame for hooking onto the support, torsional springs opposing rotation of said hooks relative to the frame, means for indicating the angular relation between the hooks and the frame whereby the weight of the clothes in the basket in deflecting the torsional springs is directly shown.

2. A yieldable hanger support for a collapsible clothes hamper or the like comprising a rod secured to an upper edge of the hamper, a pair of hooks, by which the hamper can be supportably hung, pivotally secured to the rod, an anchor bracket adjacent each of said hooks secured to the hamper, a torsional spring securing the hooks to the adjacent brackets in yieldable association, a graduated scale on the hook, a pointer on the bracket in alignment with the scale for indicating the relative axial position of the hook and bracket whereby a direct indication of the weight of material in the hamper is shown.

3. A yieldable hanger support for a collapsible clothes hamper or the like comprising a rod secured to an upper edge of the hamper, a pair of hooks, by which the hamper can be supportably hung, pivotally secured to the rod, an anchor bracket adjacent each of said hooks secured to the hamper, a torsional spring securing the hooks to the adjacent brackets in yieldable association, and means for indicating the relative axial position of the hook and bracket whereby a direct indication of the weight of material in the hamper is shown.

4. A clothes hamper comprising a flexible bag, a folding frame engaging said bag to support same, hanger arms and torsion spring means

5

for securing said folding frame to a support, and means for indicating the deflection of said hanger arms and torsion spring means when material is loaded into said bag and the clothes hamper is supported by said spring means.

5. A clothes hamper comprising a flexible bag, a folding frame engaging said bag to support same, a pair of rigid arms for the clothes hamper, and torsion spring means securing said hanger arms to said folding frame for variable deflection under varied loads in the clothes hamper when it is supported by said hanger arms.

6. In combination, a support, a flexible bag, a folding frame supporting said bag and including an upper edge rod, a pair of support arms for engaging said support, torsion spring means operatively engaging and connecting said rod and said

6

support arms, and indicator means operatively associated with at least one of said spring means to measure the deflection thereof and thereby the load in said bag.

7. A combination as in claim 6 wherein said folding frame is adapted to be collapsed against said support, and said support arms removably engage said support.

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