

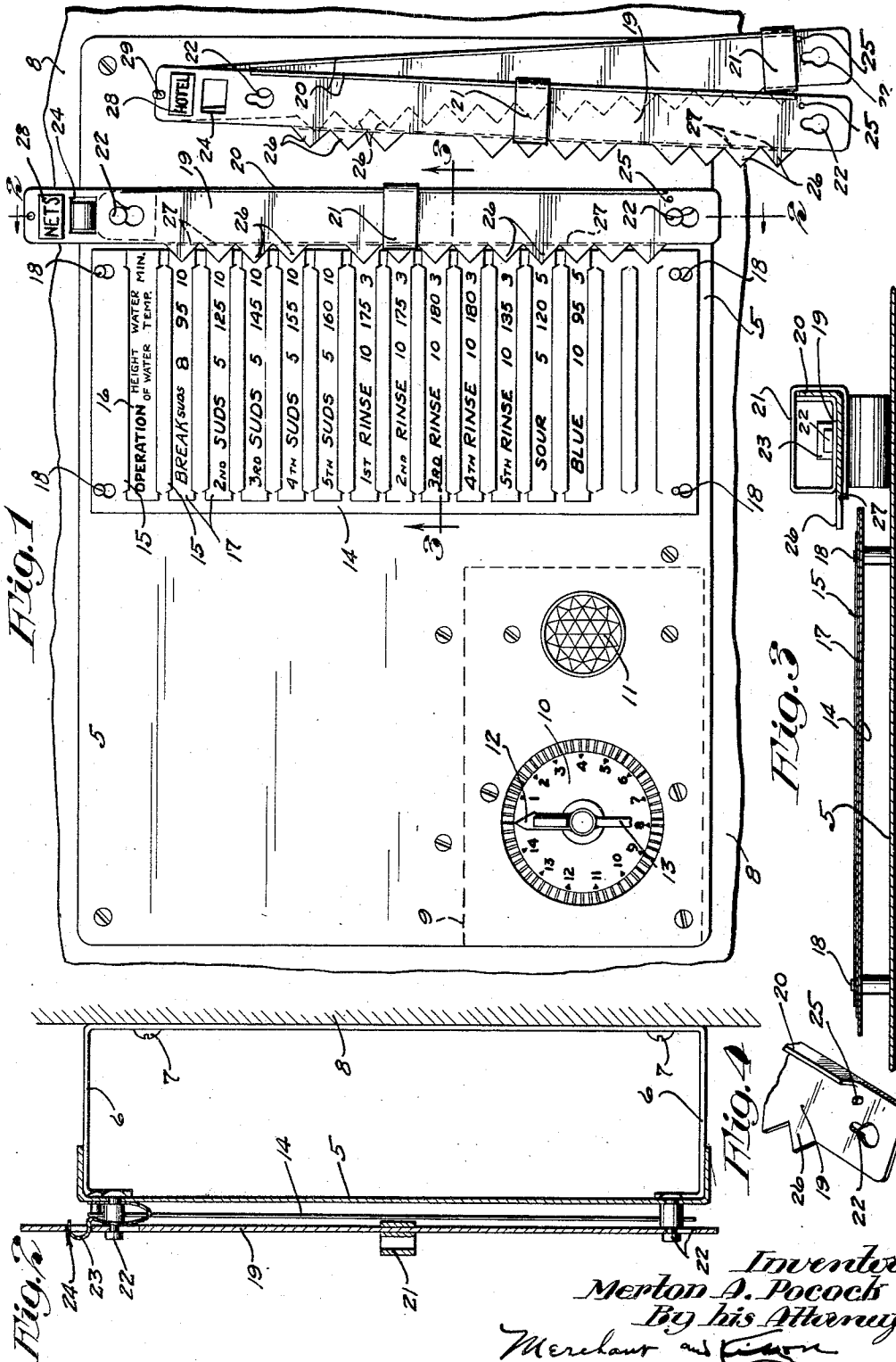
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OPERATION CHART AND INDICATOR

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UNITED STATES PATENT OFFICE

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OPERATION CHART AND INDICATOR

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My present invention relates to an operation chart and indicator for carrying out a process having different steps of progression during the operation.

5 The invention while intended for general use is especially well adapted for use in connection with laundry washers or so-called "washing wheels", wherein articles being washed are subjected during the washing operation to different processes. During a washing operation the height of the water in a washer must be changed for certain of the different processes as well as the temperature of the water and the period of time the washer is operated is also changed for certain of the processes. Alarm clocks are now used by operators to indicate the completion of each step or process in a washing operation.

20 When washing different kinds of articles it is necessary to vary the number of steps or processes for the respective washing operation which, together with the large number of such steps or processes, it is very easy for an operator to become confused as to the particular washing operation being carried out and the stage at which it is in. It is now necessary for an operator to remember the nature of the articles being washed as well as whether they are personal clothes such as hotel "guest" work, hotel "flat" work, "family" wash, overalls, or of any other classification used by the trade.

35 This invention as illustrated is designed for use in connection with a laundry washer and includes an operating chart on which appears the different steps to be performed during a washing operation, the height of water in the washer, its temperature and the number of minutes the washer is to be operated during each step of the washing operation. Said invention further provides an indicator that may be manually set to indicate the current step in a washing operation and any step or steps to be eliminated.

By the use of my invention an operator by looking at the chart may tell at a glance the different steps to follow in carrying out a given washing operation and the indicator will denote the current step in the operation

so that operators may be changed during a washing operation without confusion as to the kind of articles being washed or as to how far the operation has proceeded.

To the above end, generally stated, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings:

Fig. 1 is a front elevation of the invention mounted on a wall;

Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1;

Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 1, on an enlarged scale; and

Fig. 4 is a fragmentary detail view showing the lower end portion of one of the indicator bars.

The numeral 5 indicates a panel having on its back a pair of brackets 6 detachably secured by screws 7 to a wall 8. An alarm clock 9 of well known commercial form is mounted on the back of the panel 5 and for the purpose of this case, it will only be necessary to consider the alarm portion thereof. This alarm includes a dial 10 and a signal 11 both of which are on the face of the panel 5. Said dial 10 is graduated to represent a period of fifteen minutes and cooperating with the graduations is a movable pointer 12 having a thumb-piece 13 by which said pointer may be set for a predetermined period of time at the end of which the alarm will become active. As shown, the signal for the alarm is a ruby lens in front of an electric light bulb. During the period of time for which the alarm is set the pointer 12 is being returned to "0" and at the completion of this period the circuit for the electric light bulb is closed and the visual alarm given by illuminating the ruby lens.

The operation chart which is attached to the panel 5 includes a mounting plate 14 having a vertical column of holders 15, each of which is formed by a series of retaining lugs punched and pressed from the plate 14 for individually and detachably holding a main

card 16 and a plurality of secondary cards 17. As shown, the main card 16 is held by the uppermost holder 15 while the secondary cards 17 are held by the other of said holders.

It will be noted that the arrangement of the retaining lugs of each holder 15 is such that the cards 16 and 17 may be inserted therein or removed therefrom by an endwise sliding movement at the right thereof.

The mounting plate 14 is detachably secured to the panel 5 by separable fasteners 18 at the four corners of said plate. Each of the fasteners 18 includes a fixed lock stud on the panel 5 and a contracted slot in the mounting plate 14. The members of the fasteners 18 are so arranged that the mounting plate 14 is applied to the panel 5 by a lateral movement toward the same to pass the lock studs through the slots and a downward movement of said holder to cause the lock studs to enter the contracted portions of the slots and hold the members of the fasteners 18 interlocked.

The main card 16 has printed thereon the following indicia, reading from the left to the right, to wit: "Operation", "Height of water," "Water temp." and "Min." The above abbreviations "Temp." and "Min.", of course, are for "temperature" and "minutes". On each secondary card 17, reading from the left to the right, is indicia giving one of the steps in the operation and following this indicia are three symbols, to wit: numerals, arranged in three vertical columns under the headings of "Height of water," "Water temp." and "Min.", respectively. The numerals in the first column indicate the height of the water in the washer for the several steps in the washing operation, the second column of numerals gives the temperature for the water for each of said steps, and the third column of numerals gives the number of minutes the washer is to be operated for each step.

Interchangeably useable operation charts similar to the one illustrated but each having a different washing operation either as to the several steps in the operation, the height of the water in the washer, the temperature of the water or the number of minutes the washer is to be operated for each step. The separable fasteners 18 make it possible to very quickly remove an operation chart from the panel 5 and substitute a different one therefor. In some instances, in place of removing the entire operation chart and substituting a different one therefor, interchangeably useable secondary cards 17 will be provided for the different steps in the washing operation and in which the height of the water, the temperature of the water and the minutes the washer is to be operated are varied.

Interchangeably useable indicators are provided for use in connection with the opera-

tion chart and each thereof includes a flat bar 19, having an its rear edge an outstanding flange 20, and a slide 21 on said bar. The indicator in use is detachably secured by separable fasteners 22 to the panel 5 in an upright position at the right of the operation chart and closely associated therewith. Said separable fasteners 22 are of the same type as the fasteners 18 and include fixed lock studs on the panel 5 and contracted slots in the two end portions of the bar 19. The slide 21 is applied to the bar 19, as shown in Fig. 3, and frictionally held where set by spring tension. A spring catch 23 on the panel 5 is arranged to snap into a hole 24 in the bar 19 above its uppermost fastener 22 and hold said bar against endwise movement from the studs of the separable fasteners 22. A stop pin 25 on the lower end portion of the bar 19 is arranged to limit the downward movement of the slide 21 thereon.

Formed on the left hand edge of the bar 19 is a multiplicity of teeth-like pointers 26 longitudinally spaced thereon, one for each step in the washing operation and overlying the adjacent end portions of the secondary cards 17. The backs of the pointers 26 at their junction with the bar 19 are scored at 27 and in case one or more of the steps in a washing operation is to be eliminated the respective tooth or teeth are broken from the bar 19.

Applied to the upper end portion of each bar 19 is a symbol 28 indicating the class of work for which the particular indicator is to be used, for instance, nets, hotel, guest, and the like. The indicators not in use are hung from the pin 29 on the panel 5 at the right of the indicator in use.

In starting a washing operation the proper operation chart is hung on the panel 5, and its cooperating indicator is also mounted on said panel. The slide 21 is moved to the top of the bar 19 for the first operation and the alarm set for the number of minutes the washer is to be operated. As the steps in the washing operation are completed the operator moves the slide 21 downward on the bar 19 for each successive step and if one of the pointers 26 is broken away the slide 21 is moved past this step in the washing operation.

Obviously, an operator looking at the chart and indicator may tell at a glance the class of work being done and the current step in the operation.

What I claim is:

1. A chart for a given operation having different steps of progression and including a heading indicating the requirement for the operation, indicia indicating the different steps of progression in the operation, and a symbol for each step in the operation and indicating the ratio for the requirement, in combination with a slidable indicator ar-

ranged to be moved into designating relation with each step in the operation.

2. A chart for a given operation having different steps of progression and including a heading indicating the requirements for the operation, indicia indicating the different steps of progression in the operation, and a symbol for each step in the operation and indicating the ratio for the requirement, in combination with an indicator comprising a bar having a designating element for each step in the operation, and an indicator mounted on the bar and arranged to be brought into registration with any one of the designating elements.

3. The structure defined in claim 2 in which anyone of the designating elements may be rendered inoperative.

4. The structure defined in claim 2 which further includes a panel for the indicator, and separable fasteners detachably securing the bar to the panel.

5. The structure defined in claim 2 in which the designating elements on the bar are scored to permit the removal of anyone thereof from the bar by breaking.

6. The structure defined in claim 2 in which the indicator is slidably mounted on the bar and frictionally held where set.

7. A chart for a given operation having different steps of progression and including a heading indicating the requirement for the operation, indicia indicating the different steps of progression in the operation, a symbol for each step in the operation and indicating the ratio for the requirement, in combination with interchangeably useable indicator bars, each having designating elements for certain of the steps in the operation, and an indicator mounted on the bars for adjustment thereon into registration with any one of its designating elements.

8. A chart for a given operation having different steps of progression and including a heading indicating the requirement for the operation, indicia indicating the different steps of progression in the operation, a symbol for each step in the operation and indicating the ratio for the requirement, in combination with interchangeably useable indicator bars, each having designating elements for certain of the steps in the operation, and an indicator slidably mounted on the bar for movement into registration with any one of its designating elements.

9. The structure defined in claim 8 in which each bar has an identifying symbol.

10. The combination with a panel, of a chart for a given operation including a mounting plate detachably secured to the panel, a heading indicating the requirement for the operation, a vertical column of spaced card holders on the mounting plate, cards removably mounted in the holders, said cards having indicia indicating the different steps

of progression in the operation, a symbol for each step in the operation and indicating the ratio for the requirement, and an indicator movable into designating relation with any one of the cards.

In testimony whereof I affix my signature.

MERTON A. POCOCK.

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