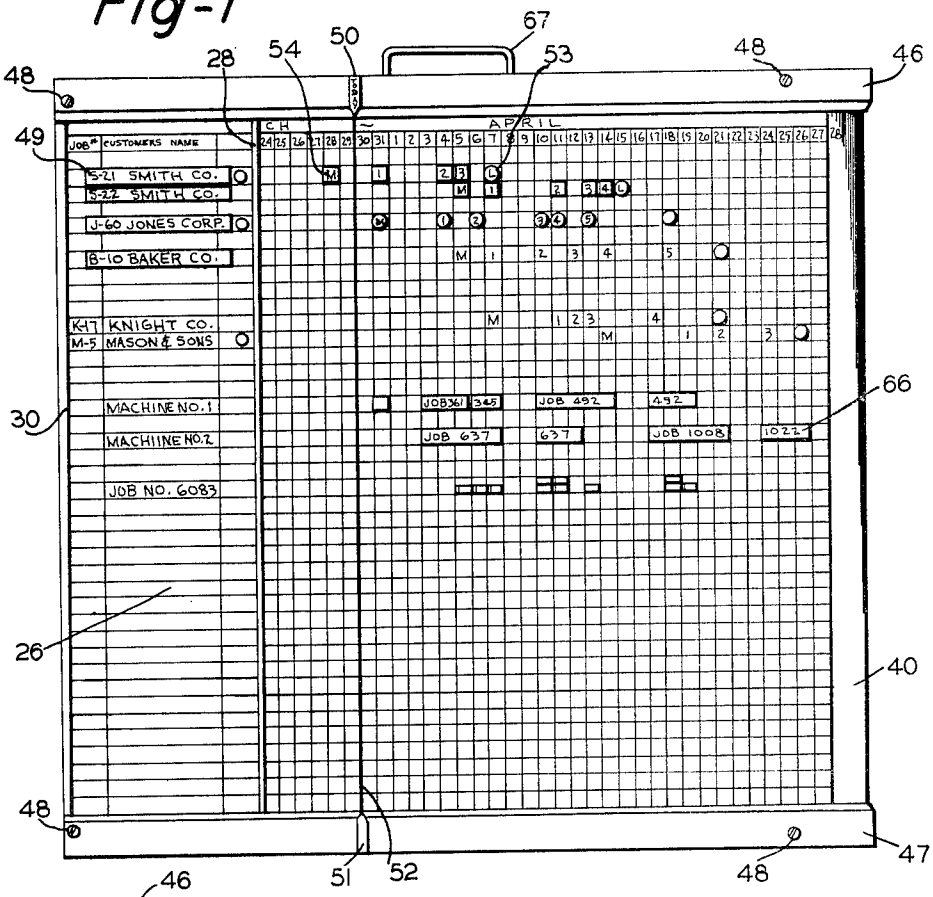
Dec. 21, 1965 W. A. STEWARD 3,224,128

WORK CONTROL AND SCHEDULING DEVICE

Filed April 25, 1963 4 Sheets-Sheet 1

Fig-1



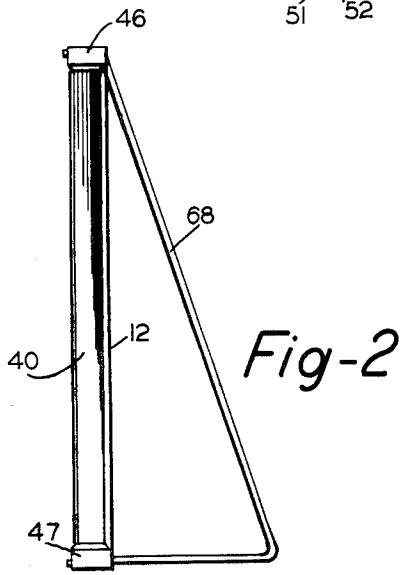


Fig-2

INVENTOR.
WILLIAM A. STEWARD

BY Cushman Darby & Cushman

HIS ATTORNEYS

WORK CONTROL AND SCHEDULING DEVICE

Filed April 25, 1963 4 Sheets-Sheet 2

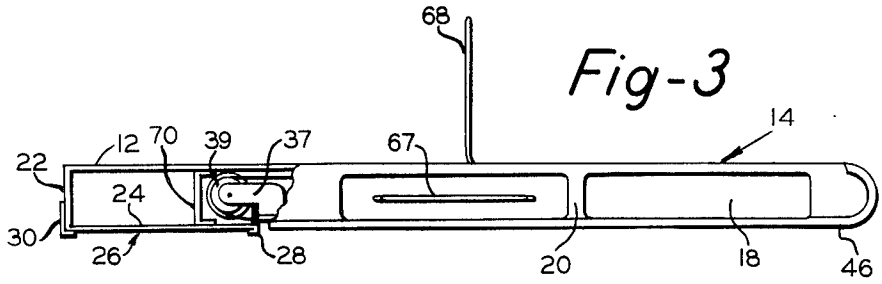


Fig-3

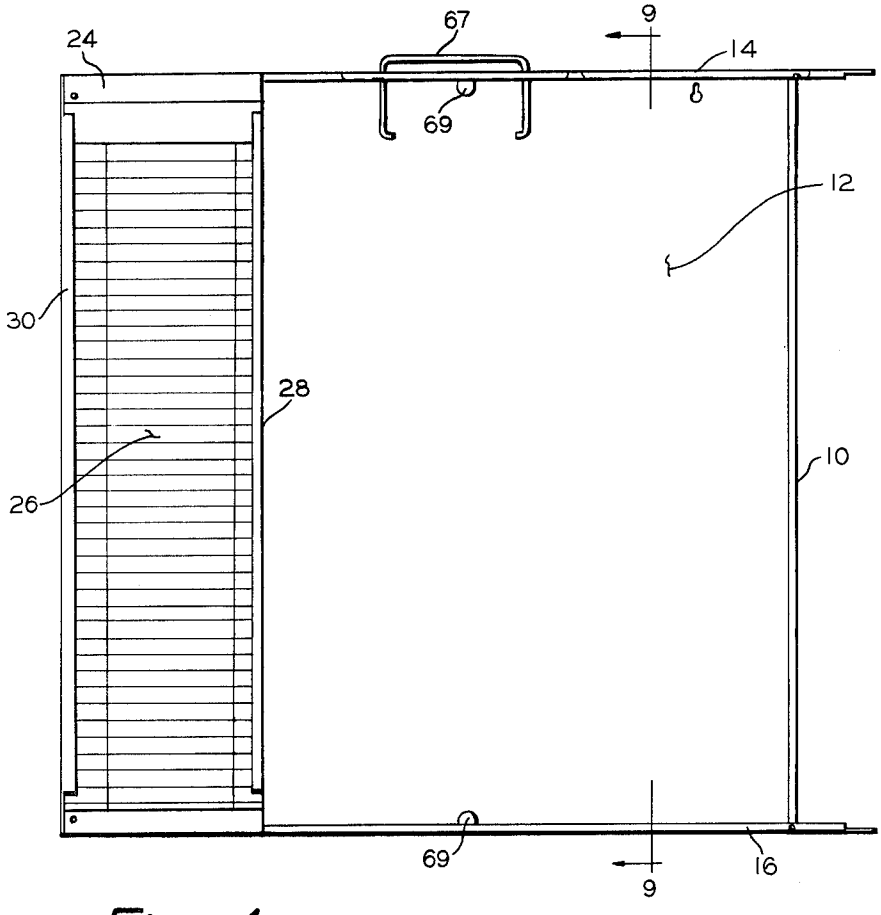


Fig-4

INVENTOR.
WILLIAM A. STEWARD
BY Cushman Darby & Cushman
HIS ATTORNEYS

WORK CONTROL AND SCHEDULING DEVICE

Filed April 25, 1963 4 Sheets-Sheet 3

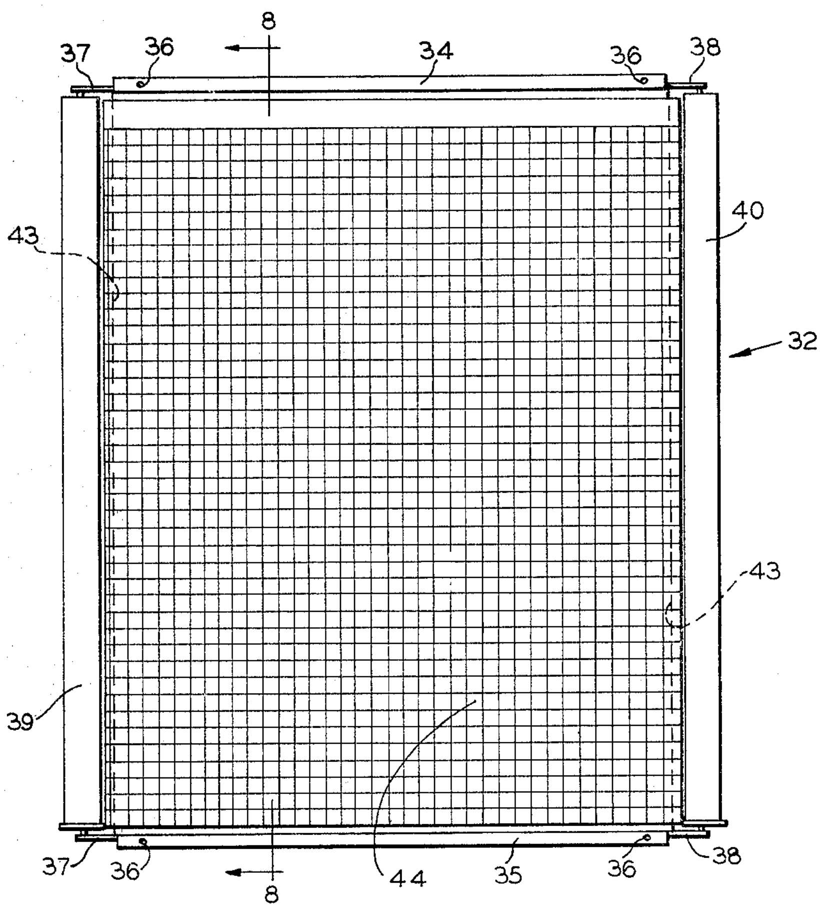


Fig-5

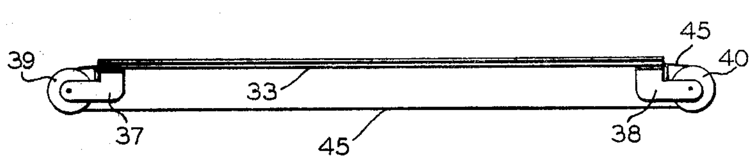


Fig-6

INVENTOR.
WILLIAM A. STEWARD

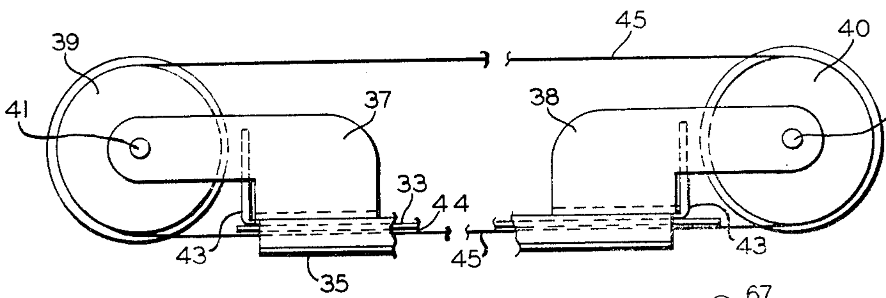
BY Greenhoff[?] and Slick[?]
HIS ATTORNEYS

Dec. 21, 1965 W. A. STEWARD 3,224,128

WORK CONTROL AND SCHEDULING DEVICE

Filed April 25, 1963 4 Sheets-Sheet 4

Fig-7



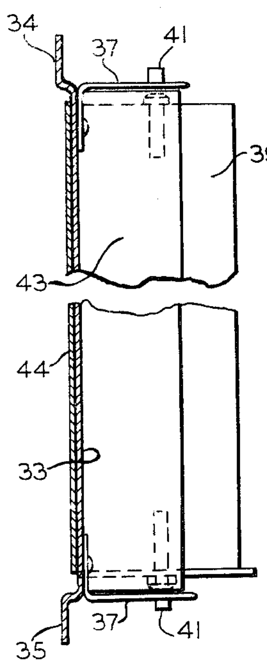


Fig-8

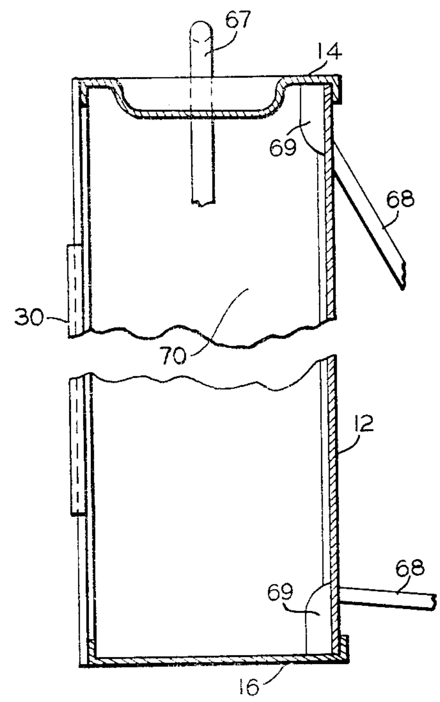


Fig-9

INVENTOR.
WILLIAM A. STEWARD

BY [signature]

HIS ATTORNEYS

United States Patent Office 3,224,128 Patented Dec. 21, 1965

3,224,128

WORK CONTROL AND SCHEDULING DEVICE

William A. Steward, P.O. Box 291,
Mill Valley, Calif.

Filed Apr. 25, 1963, Ser. No. 275,559
2 Claims. (Cl. 40—96)

This invention relates to an improved work control and scheduling device such as that shown in my prior Patent 2,904,915 of September 22, 1959.

The general object of the present invention is to provide an improved construction for such a work control device, particularly improvements enabling the device to be assembled and thereafter disassembled readily to effect a change in the setup of the device.

Another general object of the present invention is to provide an improved work scheduling device wherein indicia of a magnetic nature can be used to represent information in relation to control factors.

The invention includes other objects and features of advantage, some of which, together with the foregoing, will appear hereinafter wherein the preferred form of the device is disclosed.

In the drawings accompanying and forming a part hereof:

FIGURE 1 is a front view of the device as it appears in use.

FIGURE 2 is an end view of the device shown in FIGURE 1.

FIGURE 3 is a top plan view of the assembled device with one end thereof broken away.

FIGURE 4 is a front view similar to FIGURE 1 with the movable work unit removed.

FIGURE 5 is a front view of the assembled work unit.

FIGURE 6 is a plan view from the bottom of the work unit shown in FIGURE 5.

FIGURE 7 is an enlarged view from the top of the work unit.

FIGURE 8 is an enlarged section along the line 8—8 of FIGURE 5.

FIGURE 9 is an enlarged section taken along the line 9—9 of FIGURE 4.

Referring particularly to FIGURE 4, a frame generally indicated at 10 has a rectangular back plate 12 and integral flanged plates 14 and 16 mounted respectively along the top and bottom of the back plate 12. One or both of plates 14 and 16 may have alternate depressions 18 and ribs 20 to serve as pockets for pencils; see FIGURE 3. At the left-hand edge, as seen in FIGURE 4, the back 12 is bent at right angles upon itself to provide an end 22 (FIGURE 3) and again at right angles thereto to provide a backing 24 for an indicia sheet 26. The terminal end of the backing 24 is bent over 180° upon itself to form bracket 28, which extends vertically between the top and bottom plates 14 and 16 to hold one end of the indicia sheet. A corresponding flanged strip 30 is screwed to end 22 and provides the bracket needed to hold the left edge of indicia sheet 26, as seen in FIGURE 4.

The work depicting unit is generally indicated at 32. It is a unitary structure which can be readily inserted and removed from between the top and bottom plates 14 and 16. The work depicting unit includes a rectangular back plate 33 having flanges 34 and 35 provided along the top and bottom, respectively, and adapted to be slid in from the right, as seen in FIGURE 4, between top and bottom plates 14 and 16. Flanges 34 and 35 are intended to overlie the frontal depending flanges of plates 14 and 16 and to be secured thereto by screws inserted through apertures 36. L-shaped brackets 37 and 38 are secured at the top and bottom of opposite sides of the

back plate 33 and each pair of brackets supports a roller 39 or 40 by means of pins 41 or 42.

Additional stiffness and support for the arms on the brackets is provided by flanging each vertical edge of the back 33, as at 43.

To the face of the back plate 33 is glued a ruled work chart 44. Trained about the rollers is a continuous flexible sleeve 45 formed of a transparent plastic material. The rulings present on the chart 44 are thus clearly visible. Molding elements 46 and 47 having arcuate right ends, as seen in FIGURE 3, are fixed to the frontal flanges of the top and bottom plates 14 and 16 by means of screws 48.

When assembled, the roller 40 is adjacent the right-hand end of the plates 14 and 16 but is exposed so it can be readily turned by hand.

In a typical use situation, job orders for various customers and the work status of various machines may be applied directly to the index sheet 26. The surface thereof can be written upon with a grease pencil as has been indicated by the notations "Knight Co.," "Mason & Sons," "Machine No. 1," "Machine No. 2," and "Job No. 6083." The "Smith Co.," "Jones Corp.," and "Baker Co." items, however, have been applied by first making these entries on strips of magnetic material 49 having surfaces such that they can be written upon. Preferably, the backing member 24 over which the indicia sheet 26 is applied is a ferro-magnetic material so that these indicia remain in place. Along the top of the ruled chart 44 the days of the month may be written. A reference line is provided by mounting a clip or by engaging the top and bottom moldings 46 and 47 with clips 50 and 51 between which is stretched elastic cord 52. The work status, for example, of the "Smith Co." items is indicated by magnetic indicia 53 and 54, indicia 53 being cylindrical while indicia 54 is rectangular in cross-section. This arrangement requires that the backing member 33 for the ruled chart 44 be of a ferro-magnetic material. Elements 51 and 52 thus move with the flexible backing sheet 45 as the latter is moved over the chart 44 beneath it and the relative relationship of the magnetic elements is retained undisturbed. In the case of the various "Baker Co.," "Knight Co.," and "Mason & Sons" entries, the written legends have been entered with grease pencil while the last three entries for each have been made by affixing a magnet of the type just described. In the case of the last three entries, "Machine No. 1," "Machine No. 2," and "Job No. 6083," the indications have been given by the use of strips of magnetic material 66 upon which various items have been written.

To facilitate transportation of the device, retractable handle 67 is provided as disclosed in my aforementioned patent. Side brace 68 is movably mounted in recesses 69 in plate 12 and can be extended to support the device from a work surface such as a desk.

As can be seen in FIGURE 3, further reinforcing means for the two parallel but spaced legs 12 and 24 are provided by the U-shaped brace 70 which extends between the top and bottom plates 14 and 16. Unlike the device shown in my Patent 2,904,915, however, the roller 39 is not supported by this bracket but rather by the L-shaped arm 37 which is in turn integral with the assembly shown in FIGURES 5 and 6. This permits the portion of the assembly having the rollers, ruled sheet 44 and the transparent plastic 45 to be removed from the rest of the frame as a unit, and should the plastic be torn and need replacement, or should the ruled sheet 43 be damaged or worn, replacement may be made readily without removing top plate 34 as was necessary in the structure of the issued patent aforementioned. The structure of this invention is also far more readily assembled since the two unitary portions of the structure as represented in

FIGURES 4 and 5 may be preassembled and thereafter these two properly fitted together and the moldings 46 and 47 secured in place.

Obviously, many modifications and variations of this invention may be made without departing from the spirit and scope thereof, and therefore only such limitations should be made as are indicated in the appended claims.

I claim:

1. In a work chart:

(a) a frame having a back plate, top and bottom plates extending normal to the back plate along opposite edges thereof, an end extending normal to the back plate between the top and bottom plates, and a front plate extending between the said top and bottom plates and joined to the said end, said front plate being of lesser length than the said back plate whereby to provide a generally L-shaped structure, said front plate, end and back plate together providing a receptacle;

(b) a separate work-depicting unit adapted to be partially fitted into said receptacle, said work-depicting unit including a planar support for a chart, a pair of brackets at either end of said planar support, a pair of spaced rollers mounted in each of the said pair of brackets at each end of the said planar support, a chart secured to one side of the planar support, and a flexible transparent sleeve trained about the rollers and covering the front of the said chart, said work-depicting unit being partially inserted in the said receptacle formed by the said back, end and front plate of the said frame whereby one of the said rollers is enclosed within the said receptacle and the other of the said rollers remains exposed.

2. The structure of claim 1 wherein the planar support of the said work-depicting unit are formed of a ferromagnetic material and wherein a plurality of magnetic elements are removably secured to the surface of the said sleeve by the magnetic attraction between the said ferromagnetic material and the said magnetic elements.

References Cited by the Examiner

UNITED STATES PATENTS

2,904,915 9/1959 Steward ---------- 40—96

FOREIGN PATENTS

1,183,923 2/1959 France.

JEROME SCHNALL, *Primary Examiner.*