

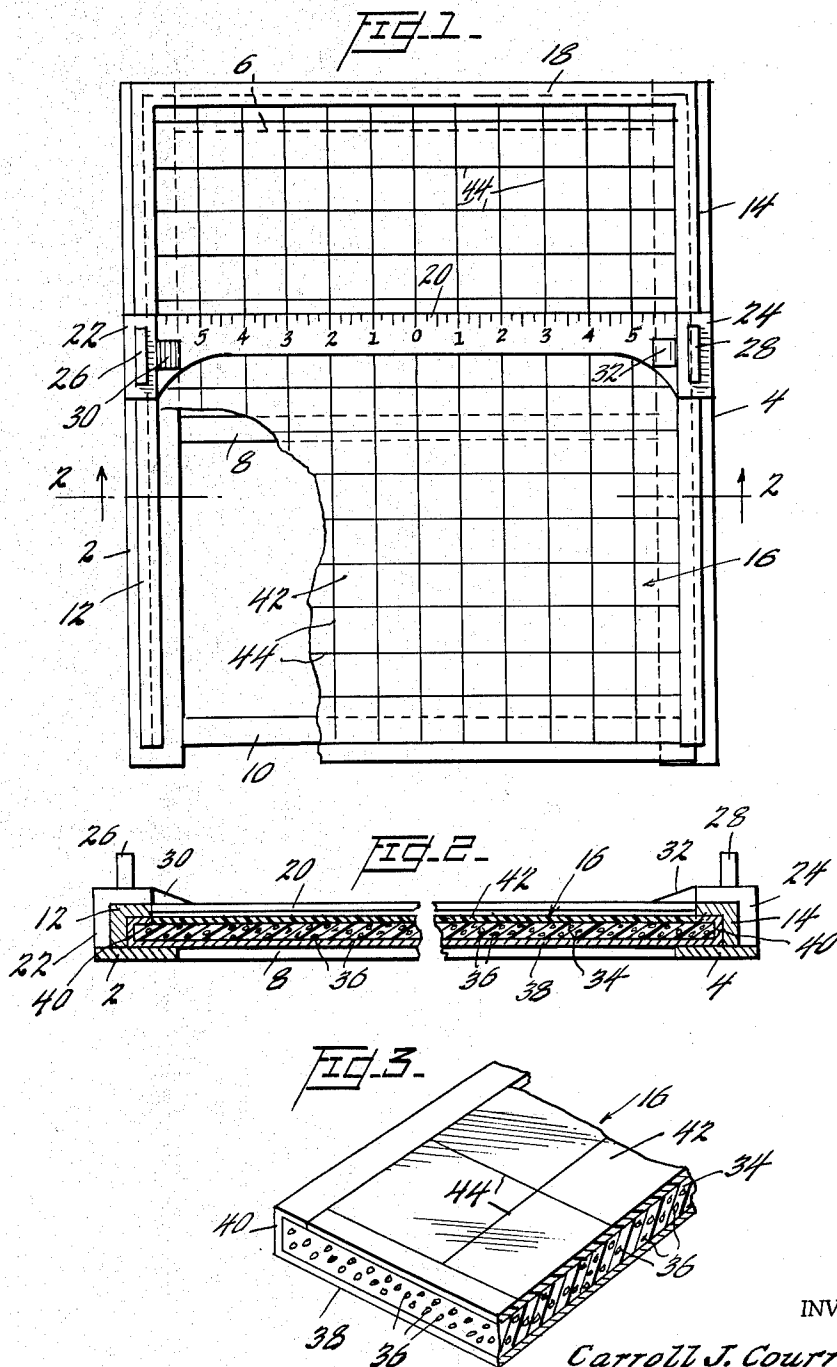
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MAGNETIC COPY-SETTING DEVICE

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MAGNETIC COPY-SETTING DEVICE

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8 Claims. (Cl. 33—184.5)

This invention relates to a device for setting copy, particularly for photographing, as in the case of the preparation of plates for use in offset printing, for example, but not limited to such specific use. In still greater particular, it relates to a holding framework for characters, in which the latter are mounted by simple placement on a magnetic panel. Although devices of this general nature have been proposed heretofore, they have been attended with certain shortcomings, notably in respect to the efficiency of the magnetic field, wherein individual magnets have been employed in schemes wherein they are too large and too few in number to provide a finely distributed field which is equal to the demands of precisely arranging groups of type in the various size categories, running from coarse to fine. In addition to this coarseness of pattern in the magnetic field, the utility of these devices has been seriously circumscribed, or curtailed, by the correlated shortcoming of excessive thickness in the magnetic component, with the result that the holder is not at all adapted for mounting in standard, copying cameras, and is limited to photographing at a distance, or to use as a mere sign, or display device. Another drawback in prior devices resides in the necessity for fixing the characters in place, for subsequent use or processing, after they have been tentatively set by action of the magnetic elements.

It is therefore a general object of the present invention to provide a device which is not subject to the aforesaid shortcomings, and particularly to provide a device having a magnetic component of minimized depth, and finely distributed field. An object related to the foregoing is to provide a holder which is adapted for mounting in conventional copying cameras.

Yet another object is to provide a compact, magnetic component in a type-holding device, which includes a grid element for a guide in mounting the legends.

Another general object is to avoid the need for fixation of characters to the mount after initial setting.

More particularly, it is an object to provide a frame with side grooves or tracks, adapted to receive a sheet-form magnetic component, and a cooperating, calibrated scale, adapted for sliding movement along the frame, in overlying relation to the magnetic sheet.

These and other objects, which will be apparent, are attained by the present invention, a preferred form of which is described in the following specification, as illustrated in the drawing, in which:

FIGURE 1 is a top plan view of the frame, with the magnetic sheet and the calibrated scale in place.

FIGURE 2 is a sectional view taken on the line 2—2 of FIGURE 1, and

FIGURE 3 is a fragmentary view, in perspective, of one corner of the magnetic sheet, or board.

Referring to the drawing by characters of reference, there is shown a base frame comprising a planiform, rectangular latticework of aluminum material, including a pair of side rails 2, 4, an end rail 6, and cross rails 8 and 10. Medially of their width, rails 2 and 4 carry tracks 12, 14, of inverted L form, defining a pair of mutually facing channels, providing slide tracks for opposite side edges of the magnetic plate or sheet 16. A section 18 of L stock similar to sections 12, 14, joins the ends of the latter along one edge of the base plate

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10, leaving the other end thereof free for insertion of the magnetic component 16.

A scale 20, arranged in bridging relation to the base plate 10, is calibrated in linear measure, from its center outward in both directions, and is carried by a pair of riders 22, 24, of inverted L form, arranged in nested relation to rails 12, 14, so as to be slidable therealong. For facility in handling, placement and removal, the riders 22, 24 have upwardly extending tabs or plates 26, 28, respectively, and in order to bring the scale 20 into close proximity to the magnetic component 16, the scale is secured to the undersides of wedge-form tabs 30, 32, extending inwardly from riders 22, 24, respectively.

As seen in FIGURE 3, the magnetic component 16 comprises a relatively thin sheet, or panel of plastic 34, with magnetic inserts 36, which is endowed with extra rigidity and durability by means of a base sheet 38, of stainless steel, the edges of which are folded around the edges of plastic sheet 34, to provide retaining flanges or margins 40, which serve, additionally as slide-bearing surfaces, for movement in tracks 12, 14.

The magnetic board 16 will be fabricated in any suitable manner consistent with the materials employed in making up the aggregate. For instance, the metal particles, of suitable alloy for high-strength magnetic properties, such as "Alnico," may be mixed with the raw plastic material before molding or extruding, and thus become an integral part of the board, widely and uniformly dispersed, and after shaping of the board, it may be processed in a magnetic field, whereby each individual particle becomes permanently magnetized, and the magnetic field through the board is the cumulative effect of the totality of particles. Thus, the mounting board becomes a self-contained, magnetic instrument, which will attract and hold characters of suitable ferric material, not only for initial placement, but throughout an entire range of processing, including the taking of photographs.

The type, or other characters used, may be wholly of magnetically susceptible material, such as the ferric metals, or may be of other material, such as plastic, with a suitable layer or coating of magnetically susceptible material on its under side.

For cooperative use with the guide scale 20, the top surface of magnetic board 34 carries a cover sheet 42, of thin plastic material, suitably bonded, as by cement, and having a system of grid lines 44, shown as arranged in rectangular pattern, but which could also be arranged in other schemes. The grid lines 44 will preferably be of a color which will not photograph.

With the magnetic board 16 mounted in the base frame, the legend may be quickly, easily, and accurately laid out by simply placing the characters on top of the board, aided, if necessary, by the grid lines 44 and the scale 20. With the legend laid out, the board 34 may be withdrawn from the frame by sliding movement in tracks 22, 24, after which it may be further used, or processed, at any location, and in any position of inclination or orientation, with the legend remaining firmly in place at all times. In particular, the thin board 34 is readily adapted for insertion in the mounts of standard cameras. When the board has served its purpose for a given operation, the type, or characters, may be easily removed, by sidewise movement across the board, and the board re-used for a fresh legend, or placed in the frame for storage until again required. The type is re-usable, and a single supply suffices for all uses.

The method and means described herein, represent a fast and economical system of setting copy for offset printing, including figures, letters, art work, and line drawings, for instance. While the board is primarily designed for setting original copy, pre-set copy may also be handled,

separately, or in conjunction with original copy. In all cases, the conventional, tedious and time-consuming process of pasting up of copy, required in all conventional processes, such as "Foto Type," "Artype," photographic headliners, and strip printers, is avoided.

While a certain, preferred embodiment has been shown and described, modifications will be apparent, in the light of this disclosure, and the invention should not, therefore, be deemed as limited, except insofar as shall appear from the spirit and scope of the appended claims.

We claim:

1. A device for temporary mounting of letters or other characters, comprising a planiform, open-work, base frame having a pair of parallel, side rails and cross rails connecting the side rails, a pair of slide tracks, of inverted L-form, carried on the respective side rails, and defining mutually facing channels, a calibrated scale spanning the space between said side rails, and having ends of inverted L-form nested on the respective tracks, for guided, sliding movement therealong, and a sheet-like insert of rectangular form, with two opposite sides slidably received in said pair of tracks, said insert comprising a sheet of plastic material having uniformly dispersed, particles of magnetic material, with field transverse to the general plane of said sheet, a metallic sheet in surface contact with one side of said plastic sheet and enveloping at least two opposite edges thereof, and overlapping the other side, and a sheet of plastic material bearing grid lines on the said other side of said plastic sheet, between the overlapping portions of said metallic sheet.

2. A device for temporary mounting of letters or other characters, comprising a planiform, open-work, base frame having a pair of parallel, side rails and cross rails connecting the side rails, a pair of slide tracks, of inverted L-form, carried on the respective side rails, and defining mutually facing channels, a calibrated scale spanning the space between said side rails, and having ends of inverted L-form nested on the respective tracks, for guided, sliding movement therealong, and a sheet-like insert of rectangular form, with two opposite sides slidably received in said pair of tracks, said insert comprising a sheet of plastic material having uniformly dispersed particles of magnetic material, with fields transverse to the general plane of said sheet, a metallic sheet in surface contact with one side of said plastic sheet, and enveloping at least two opposite edges thereof, and overlapping the other side, and a sheet of plastic material bearing grid lines on the said other side of said plastic sheet.

3. A device for temporary mounting of letters or other characters, comprising a planiform, open-work, base frame having a pair of parallel side rails and cross rails connecting the side rails, a pair of slide tracks, of inverted L-form, carried on the respective side rails, and defining mutually facing channels, a calibrated scale spanning the space between said side rails, and having ends of inverted L-form nested on the respective tracks, for guided, sliding movement therealong, and a sheet-like insert of rectangular form, with two opposite sides slidably received in said pair of tracks, said insert comprising a sheet of plastic material having uniformly dispersed, particles of magnetic material, with fields transverse to the general plane of said sheet, a metallic sheet in surface contact with one side of said plastic sheet, and enveloping at least two opposite edges thereof, and a sheet of plastic material bearing grid lines on the said other side of said plastic sheet.

4. A device for temporary mounting of letters or other characters, comprising a planiform base, a pair of parallel slide tracks, of inverted L-form, carried on said base, and defining mutually facing channels, a calibrated scale spanning the space between said tracks, and having ends of inverted L-form nested on said tracks, for guided, sliding

movement therealong, and a sheet-like insert of rectangular form, with two opposite sides slidably received in said pair of tracks, said insert comprising a panel of plastic material having uniformly dispersed particles of magnetic material, with fields transverse to the general plane of said panel, a metallic sheet in surface contact with one side of said panel, and enveloping at least two opposite edges thereof, and a sheet of plastic material bearing grid lines on said panel.

5. A device for temporary mounting of letters or characters, comprising a planiform base, a pair of parallel slide tracks, of inverted L-form, carried on said base, and defining mutually facing channels, a calibrated scale spanning the space between said tracks, and having ends of inverted L-form nested on the respective said tracks, for guided, sliding movement therealong, and a sheet-like insert of rectangular form, with two opposite sides slidably received in said pair of tracks, said insert comprising a sheet of plastic material having uniformly dispersed particles of magnetic material, with fields transverse to the general plane of said sheet, a metallic sheet in surface contact with one side of said plastic sheet, and a sheet of plastic material bearing grid lines on one side of said plastic sheet.

6. A device for temporary mounting of letters or other characters, comprising a planiform base, a pair of parallel slide tracks, of inverted L-form, carried on said base, and defining mutually facing channels, a calibrated scale spanning the space between said tracks, and having ends of inverted L-form nested on the respective tracks, for guided, sliding movement therealong, and a sheet-like insert of rectangular form, with two opposite sides slidably received in said pair of tracks, said insert comprising a sheet of plastic material having uniformly dispersed particles of magnetic material, with fields transverse to the general plane of said sheet, and a sheet of plastic material bearing grid lines on one side of said plastic sheet.

7. A device for temporary mounting of letters or other characters, comprising a planiform base, a pair of parallel slide tracks, of inverted L-form, carried on said base, and defining mutually facing channels, and a sheet-like insert of rectangular form, with two opposite sides slidably received in said pair of tracks, said insert comprising a sheet of plastic material having uniformly dispersed particles of magnetic material, with fields transverse to the general plane of said sheet, and a sheet of plastic material bearing grid lines on one side of said plastic sheet.

8. A device for temporary mounting of letters or other characters, comprising a planiform base, a pair of parallel slide tracks, of inverted L-form, carried on said base, and defining mutually facing channels, and a sheet-like insert of rectangular form, with two opposite sides slidably received in said pair of tracks, said insert comprising a sheet of plastic material having uniformly dispersed particles of magnetic material, and a sheet of plastic material bearing grid lines on one side of said plastic sheet.

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