May 31, 1932. K. ADAMIECKI 1,860,763

DEVICE FOR MAKING ORTHOGONAL DIAGRAMS

Filed Aug. 25, 1931

Fig. 1

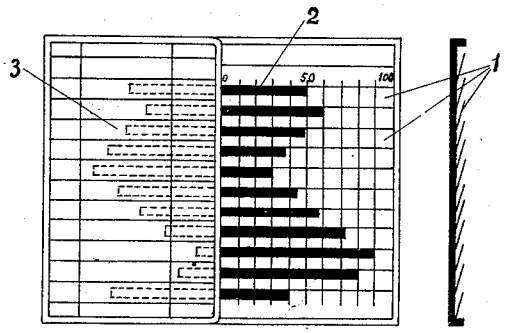


Fig. 3

Fig. 4

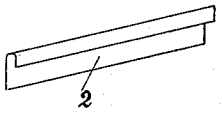


Fig. 2



Fig. 5

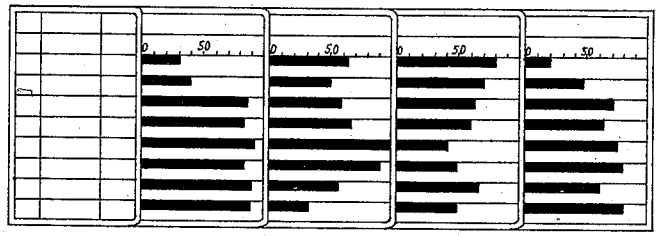


Fig. 6

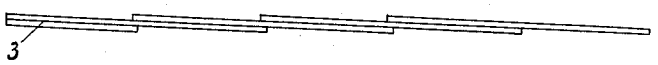


Fig. 8

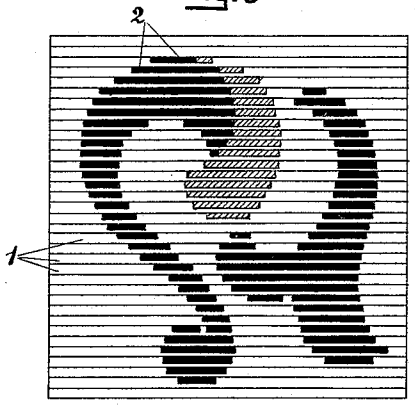
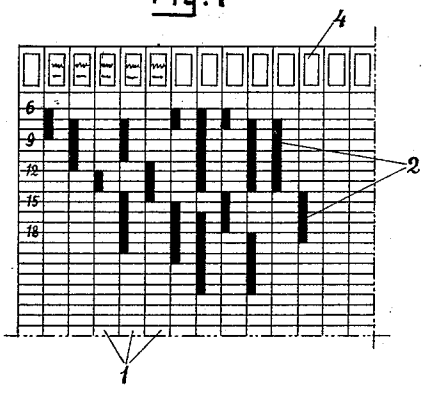


Fig. 7



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UNITED STATES PATENT OFFICE

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DEVICE FOR MAKING ORTHOGONAL DIAGRAMS

Application filed August 25, 1931, Serial No. 559,288, and in Poland October 27, 1930.

The purpose of the present invention is to facilitate and accelerate the making of orthogonal diagrams composed of parallel lines, e. g. Gant's diagrams or harmonograms, as well as of drawings composed of parallel lines, without the necessity of using drawing instruments.

According to the invention this can be accomplished by using a device consisting of a flat base composed of a series of parallel strips, and of movable borders, cursors overlapping and embracing the edges of these strips; when forming the diagrams, the base dimension perpendicular to its strips is looked upon as one of the orthogonal variable magnitudes, while the border cursor is the other one.

The annexed drawings represent, for the sake of example, several embodiments of the invention; Figs. 1, 2, and 3 are the front view, the top view, and the longitudinal section, respectively, of a device for ordinary orthogonal diagrams; Fig. 4—the border cursor in the perspective view; Figs. 5 and 6—the front and top view, respectively, of a device for Gant's diagrams; Fig. 7—a device for making harmonograms, and Fig. 8—a device for making drawings (patterns) composed of parallel lines.

The device, as shown in Fig. 1, consists of a base composed of strips 1, over the edges of which are lapped the border cursors 2 which are movable along the strips 1. The strips on the right side of the base are provided with a suitable scale. The left side of tht base is covered with a sheet 3 which may also be, like the base itself, composed of strips or folds to take exchangeable labels with suitable inscriptions. The upper strips of the base also serve for placing the exchangeable inscriptions.

The method of use of the device described above, and destinated for making orthogonal diagrams, is self-explanatory.

Instead of drawing a line of a suitable length, it will be sufficient to shove a suitable border cursor from beneath the sheet 3 by a length representing the given variable orthogonal magnitude.

The device for Gant's diagrams, as shown in the Figs. 5 and 6, consists of several devices, as described above, overlapping each other, the only difference consisting in that only the first device is provided with the cover sheet 3 upon which inscriptions are made relating to the variable orthogonal magnitudes laying on the same line.

Fig. 7 represents a device adapted for making harmonograms.

Like the devices described above, this device also consists of a base formed by strips 1 provided longitudinally with a suitable time scale (hours, minutes, etc.) and whose edges are overlapped by border cursors 2 embracing the edges of the strips. The length of the border cursors determines the time of duration of single operations, and the places occupied by the border cursors on the strips indicate the chronological order of the operations. Above the single strips 1 are placed exchangeable labels 4 with the worker's name or the designation of the given operation which are to be harmonized in time with the remaining operations. On the left side of the table are put the designations of time units, as e. g. hours, minutes, etc.

Finally the Fig. 8 represents a device constructed according to the invention, and adapted for making drawings composed of parallel lines. The ground of the drawing is formed by strips 1 on the edges of which are movably placed the border cursors 2. By selecting border cursors of suitable length and colour, and by shoving them in right place along the strips, one can obtain various patterns, inscriptions, flat forms, etc. This device may, therefore, be used in textile factories for making cloth patterns (repeats), as well as for advertising and artists' purposes.

Claims.

1. A device for making orthogonal diagrams, comprising a base consisting of a series of substantially parallel strips having a scale thereon, the dimension of the base perpendicular to the strips comprising one of the orthogonal magnitudes to be varied relatively to each other, and movable border cursors embracing and overlapping the edges of said strips, the length of the border cursor com-

prising the other variable orthogonal magnitude.

2. A device for making orthogonal diagrams, comprising a base consisting of a series of substantially parallel strips, the dimension of the base perpendicular to the strips comprising one of the orthogonal magnitudes to be varied relatively to each other, and movable border cursors embracing and overlapping the edges of said strips, the length of the border cursor comprising the other variable orthogonal magnitude.

3. A device for making orthogonal diagrams comprising a base, consisting of a series of substantially parallel strips, the dimension of the base perpendicular to the strips comprising one of the orthogonal magnitudes to be varied relative to each other, and a plurality of movable unitary border cursors embracing and overlapping the edges of the strips, the length of the border cursor comprising the other variable orthogonal magnitudes.

4. A device for making orthogonal diagrams comprising a base consisting of a series of substantially parallel strips, the dimension of the base perpendicular to the strips comprising one of the orthogonal magnitudes to be varied relative to each other and a plurality of movable, unitary border cursors, provided one for each strip and embracing and overlapping the edges of said strips, the length of said border cursors comprising the other variable orthogonal magnitude.

5. A device for making orthogonal diagrams comprising a base, consisting of a series of substantially parallel strips, the dimension of the base perpendicular to the strips comprising one of the orthogonal magnitudes to be varied relatively to each other and a plurality of movable unitary border cursors embracing and overlapping the edges of the strips, and being removable therefrom, the length of the border cursors comprising the other variable orthogonal magnitude.

6. A device for making orthogonal diagrams comprising a base consisting of a series of substantially parallel strips, the dimension of the base perpendicular to the strips comprising one of the orthogonal magnitudes to be varied relatively to each other, and a plurality of movable unitary border cursors, provided one for each strip and embracing and overlapping the edges of said strips, and being removable therefrom, the length of said border cursors comprising the other variable orthogonal magnitude.

7. A device for making Gant's diagrams comprising a plurality of bases disposed in overlapping relation with each other consisting of a series of substantially parallel strips, the base dimension perpendicular to the strips comprising one of the orthogonal magnitudes to be varied relatively to each other and a plurality of movable border cursors embracing and overlapping the edges of the corresponding strips, the length of the border cursors comprising the other various orthogonal magnitudes.

8. A device for making harmonograms, comprising a base consisting of a series of substantially parallel strips, the strips being divided transversely into a plurality of time fields, and a plurality of border cursors embracing and overlapping the edges of the strips, the said cursors being disposed transversely of said base, between at least two of the strips and the length of said cursors being proportional to the elapsed time to be indicated.

9. A device for making drawings comprising a base consisting of a series of substantially parallel strips and a plurality of movable border cursors embracing and overlapping the edges of said strips, the cursors being of different lengths and colors in order to produce a desired pattern on the base.

In testimony whereof I affix my signature.

KAROL ADAMIECKI.