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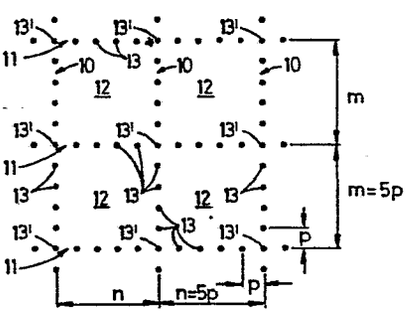
(54) **Writing or drawing paper.**

(57) A writing or drawing sheet imprinted with a pattern of parallelograms (12) defined by a grid consisting of two crossing groups of parallel lines (10,11). The grid lines are made up of uniformly spaced dots (13) and each corner of the parallelograms (12) is marked by a dot common to the two lines defining the sides of the parallelogram (13) adjacent to the corner.

FIG. 2



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Writing or drawing paper

This invention relates to a writing or drawing paper imprinted with a pattern of parallelograms defined by a grid consisting of two crossing groups of parallel lines.

A common type of writing or drawing paper is imprinted with an orthogonal grid consisting of full lines defining squares, e.g. 5 by 5 mm. Such a pattern of squares is often quite satisfactory, but in many cases the squares are inconveniently large.

As an alternative to writing or drawing paper having 5 by 5 mm squares, writing or drawing paper having 1 by 1 mm squares is commercially available. However, such papers have certain disadvantages which are particularly noticeable when they are used as photocopy originals because the grid has a tendency to become too outstanding on the copies.

An object of the invention is to provide a writing or drawing paper of the above-indicated type which combines the advantages of paper having a coarse-meshed grid with the advantages of paper having a fine-meshed grid without having the disadvantages inherent in known paper of the type having a one-millimetre grid.

According to the invention, a writing or drawing paper imprinted with a pattern of parallelograms defined by a grid consisting of two crossing groups of parallel lines is characterised in that the lines of both groups are regularly discontinuous and in that for each parallelogram of the pattern the distance between the two lines of one group which define two opposite sides of the parallelogram is a multiple of the pitch of the discontinuities of the lines defining the two other sides of the parallelogram.

Preferably, the pitch of the discontinuities is the same for all lines of each group. It is also preferred to make up the lines of both groups of dots with each corner of the parallelograms marked by a dot common to the lines which intersect at the corner.

The marks, e.g. dots, making up the lines of the grid, may each be composed of a plurality of small elements which are preferably sized and arranged such that they

cannot easily be distinguished with the naked eye, but rather are perceived as a single dot or mark, whereas, in a photocopier for example, they result in a less dense image than a "full" mark of the corresponding size. As a result, the pattern of parallelograms will not be outstanding on a copy made from an original on the paper, and may possibly even be more or less absent from the copy.

The invention will be more fully understood from the following description.

FIG. 1 is a perspective view of a writing or drawing paper embodying an orthogonal grid defining a pattern of squares according to the invention;

FIG. 2 is an enlarged plan view of the portion of the pattern of squares enclosed by a circle II in FIG. 1;

FIGS. 3 and 4 show two different types of discontinuous lines which can be used for making up the grid;

FIGS. 5 to 10 are greatly enlarged views of several embodiments of marks which can be used to make up the grid lines.

The writing or drawing paper or sheet shown in FIG. 1 has on both sides thereof a regular pattern of squares defined by an orthogonal grid made up of a group of uniformly spaced vertical straight lines 10 and a group of uniformly spaced horizontal straight lines 11. The distance between adjacent lines 10 is m and the distance between adjacent lines 11 is n. The groups of lines 10 and 11 define squares 12, the sides of which are 5 mm, for example.

All lines 10 and 11 are discontinuous in that they are made up of marks in the shape of dots 13 which are uniformly spaced and positioned such that each corner of the squares 12 is marked by a dot 13' common to the two intersecting lines 10 and 11 defining adjacent sides of the square, see FIG. 2. In the exemplary case, where the squares are 5 by 5 mm, the pitch p of the discontinuities of the lines, i.e. the centre-to-centre distance of the dots 13, is 1 mm. Naturally, the size of the squares and the pitch may vary.

The embodiment of the grid lines shown in FIGS. 1 and

2 is the embodiment that is preferable in most cases but other embodiments may be suitable in certain cases. FIGS. 3 and 4 show alternative embodiments of the lines. In the embodiment of FIG. 3 the lines interconnecting the dots 13 preferably are so thin as to be barely discernible. This is also true for the broken lines of FIG. 4.

Naturally, the pattern of squares defined by lines of the types shown in FIGS. 3 and 4 may have the same features as the pattern shown in FIGS. 1 and 2 in respect of the size of the squares, the pitch of the discontinuities and the positioning of the lines of one group relative to the lines of the other group.

The marks 13 shown in FIGS. 5 to 10 are examples of composite or open marks which may be used to make up the grid lines 10, 11. All of these marks are symmetrical about two orthogonal axes x and y. The largest dimension (diameter, height, width) of the marks may be a few tenths of a millimetre, and the largest dimension of the individual elements of the marks, such as the squares 13A or dots 13B of FIGS. 5 and 6, may be, for example, 0.02 to 0.1 mm. The width w of the annular mark shown in FIG. 9 may be in the same range. If desired, the closed annulus of FIG. 9 may be modified so as to be discontinuous, i.e. comprised of a plurality of arcuate segments.

Claims

1. Writing or drawing paper imprinted with a pattern of parallelograms defined by a grid consisting of two crossing groups of parallel lines, characterised in that the lines (10,11) of both groups are regularly discontinuous and in that for each parallelogram (12) of the pattern the distance (m) between the two lines (10) of one group which define two opposite sides of the parallelogram (12) is a multiple of the pitch (p) of the discontinuities of the lines (11) defining the two other sides of the parallelogram.

2. Writing or drawing paper according to claim 1, characterised in that the pitch (p) is the same for all lines (10,11) of each group.

3. Writing or drawing paper according to claim 1 or 2, characterised in that the lines (10,11) of both groups of lines are made up of dots (13).

4. Writing or drawing paper according to claim 3, characterised in that the corners of each parallelogram (12) are marked by dots (13) common to the lines of both groups of lines (10,11).

5. Writing or drawing paper according to any of claims 1 to 4, characterised in that the lines (10,11) are made up of marks (13) each comprising a plurality of elements (13A,13B).

6. Writing or drawing paper according to claim 5, characterised in that each mark comprises elements (13A,13B) arranged in a regular or symmetrical pattern.

7. Writing or drawing paper according to claim 6, characterised in that the elements (13A,13B) are separated from one another.

8. Writing or drawing paper according to claim 6, characterised in that adjacent elements touch one another.

9. Writing or drawing paper according to claim 3, characterised in that each dot (13) is in the form of a ring.

10. Writing or drawing paper according to any of claims 4 to 9, characterised in that the marks (13) are symmetrical about at least one axis and preferably about two orthogonal axes (x,y).

FIG. 1

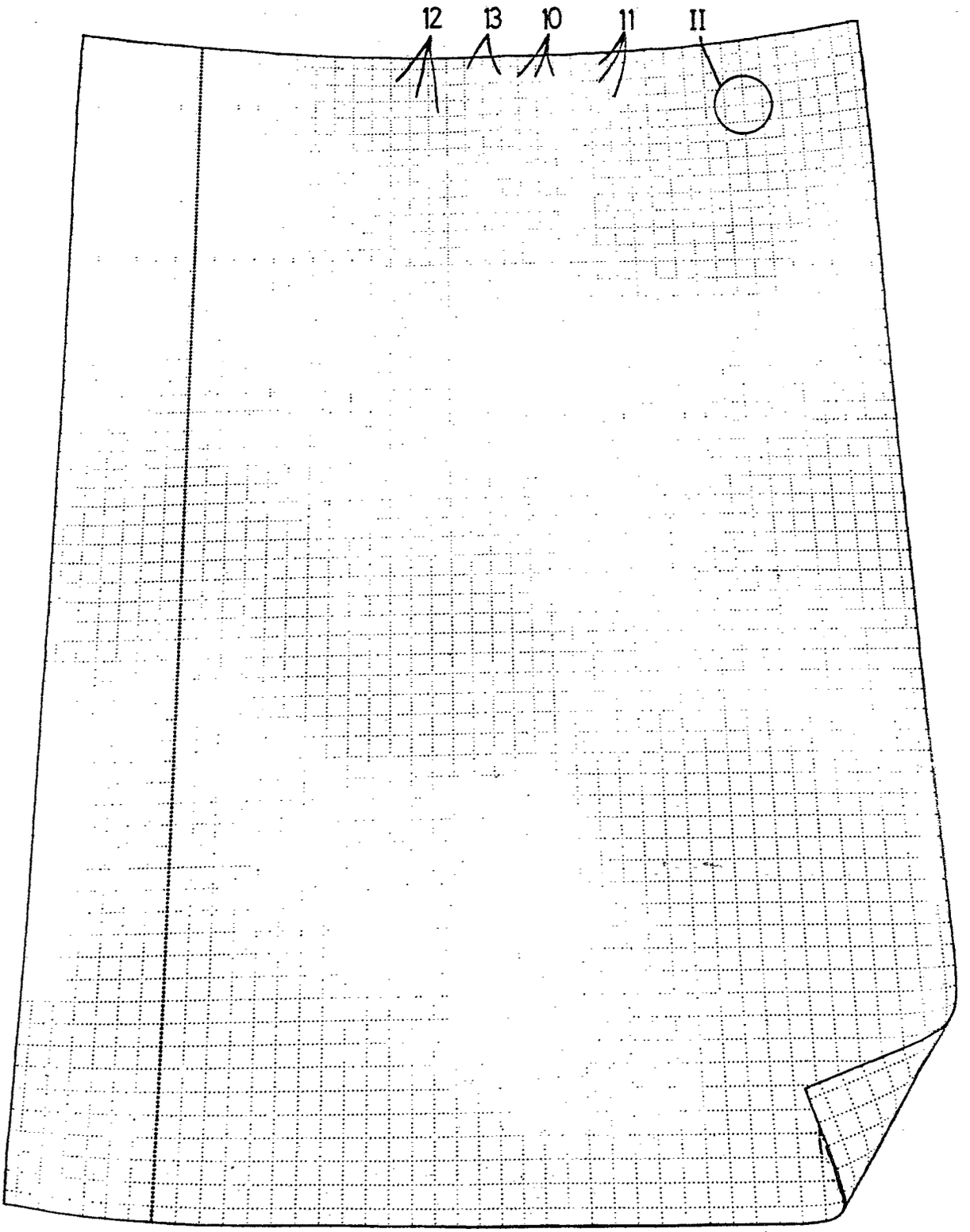

FIG. 2

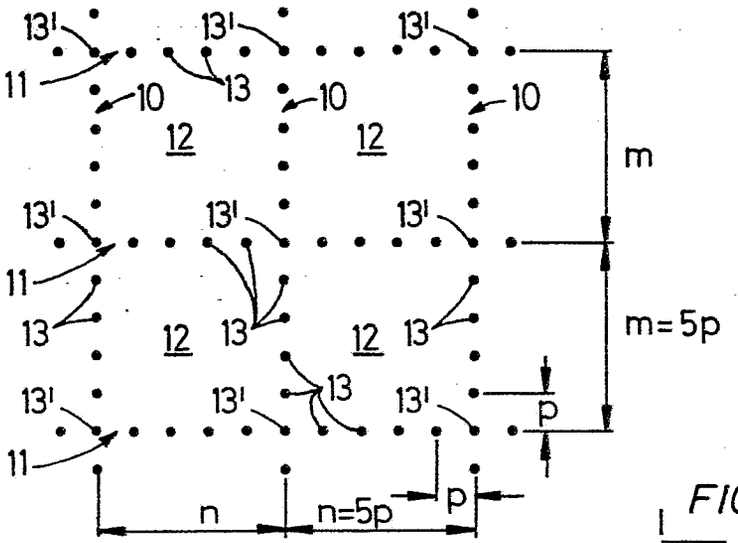

FIG. 3

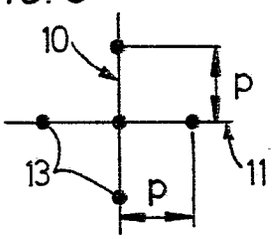

FIG. 4

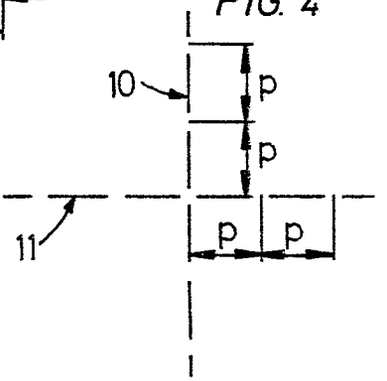

FIG. 5

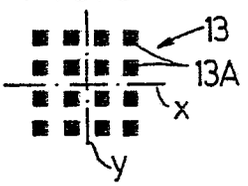

FIG. 6

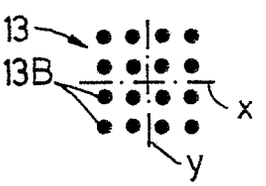

FIG. 7

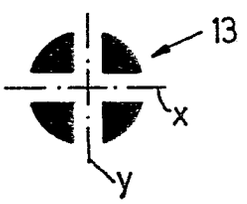

FIG. 8

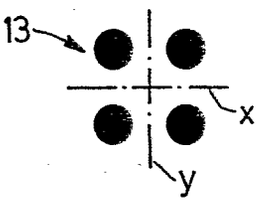

FIG. 9

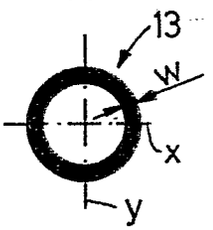

FIG. 10