Nov. 13, 1934. G. THYSSEN 1,980,560

DUPLICATING BLOCK

Filed June 27, 1931

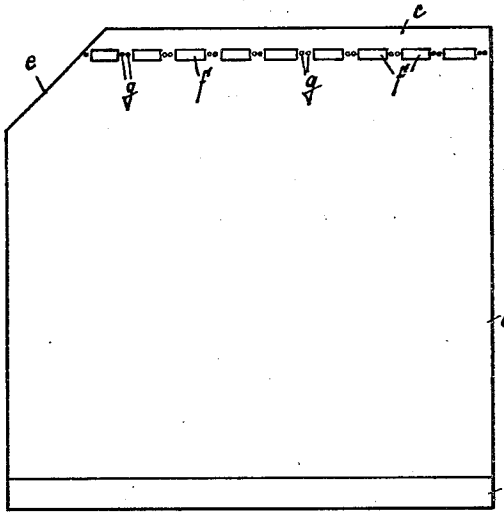


Fig. 1.

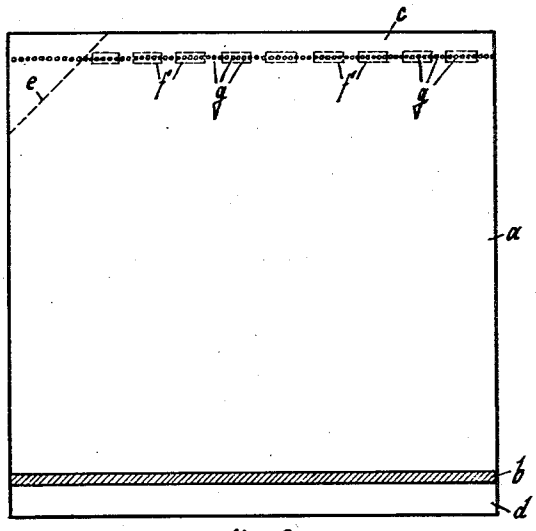


Fig. 2.

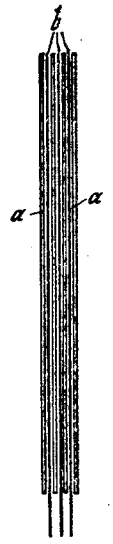


Fig. 3.

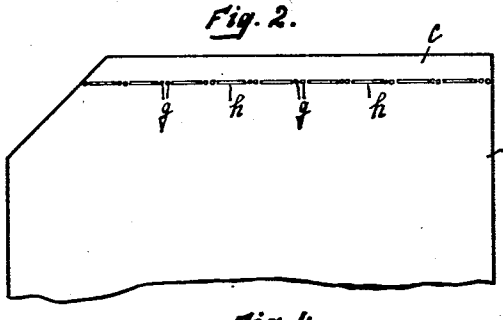


Fig. 4.

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DUPLICATING BLOCK

Gustav Thyssen, Krefeld-Forsthaus, Germany

Application June 27, 1931, Serial No. 547,405
In Germany October 31, 1930

5 Claims. (Cl. 282—22)

This invention relates to a duplicating block of alternate superposed writing sheets with perforated edge and carbon paper sheets bound together with the carbon sheets projecting at their edges opposite the bound edge beyond the writing sheets. In the known blocks of this type the writing and carbon sheets are separated both at the same time from the bound edge. In many cases however it is desired to leave the written sheets, which pass from one department to another attached together by the bound edge after the carbon sheets have been removed. In the known blocks it is necessary for this purpose to tear out the carbon sheets singly, which is troublesome and wastes time. Consequently duplicating books have also been proposed, in which the carbon sheets are inserted loosely between the writing sheets held together by one glued edge so that, after the writing of the block, they can be pulled out together. The carbon sheets have an aperture at the top, where they bear against the glued edge of the printed form so that abutments remain towards the glued edge which are intended to facilitate the inserting, when building up the set. This object is however only attained in a very imperfect manner, as the weak abutments of the only loosely inserted carbon sheets easily bend over during their insertion, so that the individual sheets do not assume an accurately correct position. A further objection to the carbon sheets which are only loosely inserted is the possibility of shifting.

In order to avoid these objections, the carbon sheets bound together with the writing sheets of the block are, according to the invention, provided before the binding and perforating with alternating apertures and spaces along the perforation line so that the carbon sheets are only very loosely attached at their bound edge. The apertures may be formed by holes or by incisions. Carbon sheets thus made may be severed together from their bound edge and pulled out of the writing sheets in a single operation. The carbon sheets according to the invention can easily be brought into register, when building up the block, as their binding edge, extending over the entire width of the block, does not bend over.

Two embodiments of the invention are illustrated by way of example in the accompanying drawing in which:—

Fig. 1 shows a carbon sheet in top plan view.

Fig. 2 is a top plan view of a duplicating block.

Fig. 3 is a side view of Fig. 2.

Fig. 4 is a top plan view of the upper part of a carbon sheet of a modified form of construction.

The carbon block consists of alternately piled up writing sheets *a* and carbon sheets *b*. All the sheets are bound together and perforated along the bound edge *c*. The binding may be effected by glueing or by means of staples. The carbon sheets *b* project at the edge *d* opposite the binding edge *c* slightly beyond the writing sheets *a* and are cut off diagonally at one corner at *e*. The edge *d* of the carbon sheets is free from carbon, in order not to soil the fingers. Before binding, the carbon sheets *b* are provided along the perforation line of the binding edge *c* with consecutive apertures *f* or *h*, arranged at intervals and, after having been united with the writing sheets *a*, they are again perforated at the same point with holes *g*. The apertures may be in the form of holes *f* (Fig. 2) or incisions *h* (Fig. 4). Owing to these apertures the hold of the carbon sheets *b* at the binding edge *c* is so weak that, if the block is held in one hand at the corner *e*, they can easily be torn out together with the other hand without destroying the holding together of the writing sheets *a*.

I claim:

1. A duplicating block, comprising in combination alternately superposed writing and carbon sheets bound together and perforated on the binding edge, said carbon sheets projecting beyond said writing sheets at the edge opposite the binding edge and being cut away along the line of perforations on the binding edge leaving narrow perforated connecting strips arranged at intervals apart along the perforation line.

2. A duplicating block as specified in claim 1, in which the cut away portions are formed by slots extending longitudinally in the direction of the line of perforations.

3. A duplicating block comprising alternately superposed writing and carbon sheets bound together along one edge and having tearing lines of perforations inwardly of the bound edge, the tearing lines of perforations in the carbon sheets being weaker than the perforations in the writing sheets whereby the carbon sheets may be unitarily severed from the block without disturbing the writing sheets.

4. The method of producing a duplicating block consisting of providing a line of cut away portions in carbon sheets, then alternately superposing the perforated carbon sheets and writing sheets with the cut away portions of the carbon sheets alined, securing the sheets of the block together at an edge outwardly of the cut away

portions and then perforating the sheets of the block on the lines of the cut away portions with perforations occurring in the lands between the cut away portions of the carbon sheets to produce tear lines in the carbon sheets weaker than the tear lines in the writing sheets.

5. The method of making a manifold device, comprising the steps of providing a sheet of carbon material with a line of cut away portions, alternately superposing said carbon sheets and imperforate writing sheets with the cut away portions of the carbon sheets in alignment, and then perforating all the assembled sheets along the line of the said cut away portions.

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