June 2, 1964 D. R. HURLEY 3,135,186

SLOT-EXTENDER FOR THERMOGRAPHIC COPYING MACHINE

Filed Nov. 17, 1960

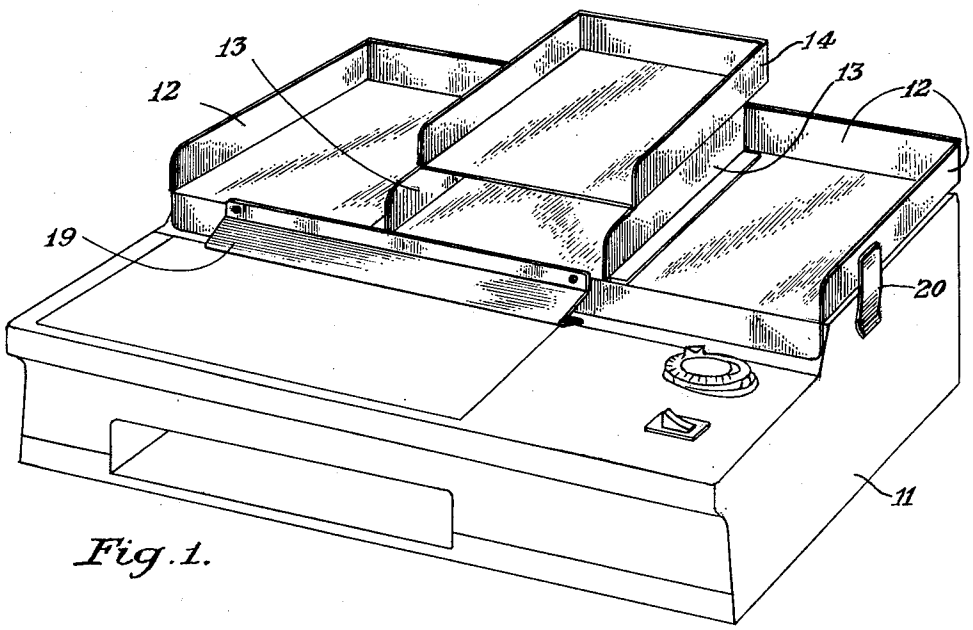


Fig. 1.

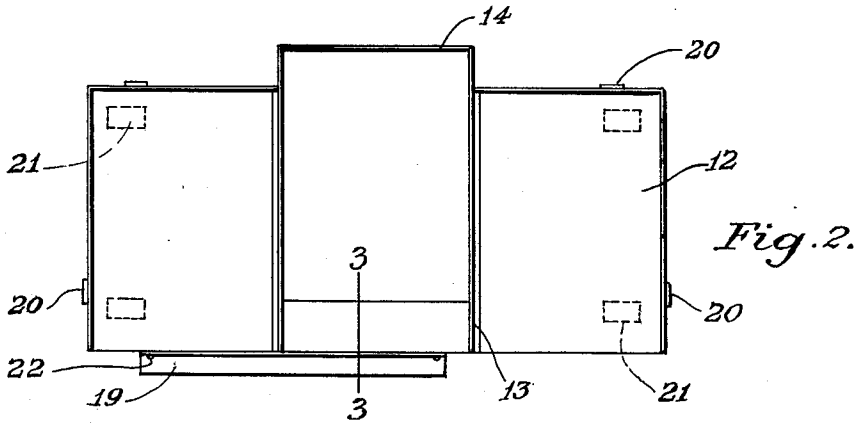


Fig. 2.

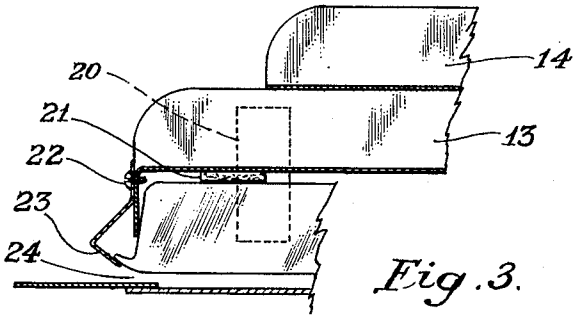


Fig. 3.

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SLOT-EXTENDER FOR THERMOGRAPHIC COPYING MACHINE

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This invention relates to thermographic copying machines; more particularly the invention relates to a supplementary attachment for commercially available thermographic copying machines that have feed slots. Still more particularly it relates to a device that in effect extends outwardly the upper plane of the feed slot.

When conventional thermographic copy paper is used without a protective jacket there is often enough curling at the edges so that the draft of air emerging from the feed slot lifts the paper from the document to be copied, thus impeding operations considerably. This phenomenon has been particularly troublesome in the duplication of doctors' statements, where the graphic original is a card and the card and copy paper are not placed in a jacket to keep them flat. The speed desired for duplication of these statements can not be attained when a jacket is used. The cards supply the required stiffness and the copy paper is prevented from blowing loose when it is pressed against the surface of the slot extender while it is being inserted in the feed slot.

It has now been found that this difficulty is completely overcome by the supplementary attachment of the present invention, which provides in combination a flat, long, rectangular, slot-extending member to be placed with its edge touching or slightly overlapping the upper edge of the feed slot, its outer surface being held approximately parallel to the upper plane of the feed slot and an attachment member for suitable mounting on the thermographic copying machine, the two members being joined together and mounted on the machine in a position suitable for holding the slot-extending member in the position described. The slot-extending member is preferably about as long as the feed slot, and preferably should be 1 to 2 inches wide, but widths of ½ inch are operable, and of course greater widths are operable up to the point where they approach the sheet size of the copy paper.

The attachment member may be of any suitable form, but preferably it is merely a flat sheet of metal with one or more spring clamps on three sides so placed that the whole device may be readily put on the machine or taken off and yet have reasonable rigidity when it is on the machine. The base plate preferably has a downwardly directed integral front wall to which is attached another piece of sheet metal appropriately bent to form the slot-extender and to bring it into the correct position. To allow for accidental or otherwise unavoidable variations in form, it is desirable to have the two members of the combination fastened together with a vertically adjustable fastening means, permitting an inch or so of vertical regulation. A simple form of such a means would be nuts and bolts in vertically slotted holes.

When half sheets of copy paper are being used as described above, it is convenient to have compartments on the attachment member to facilitate quick handling by minimizing the motions required. One embodiment of this idea is shown in the drawing.

FIG. 1 is a perspective view of the supplementary attachment properly mounted on a thermographic copying machine.

FIG. 2 is a plan view of the supplementary attachment.

FIG. 3 is a cross-sectional view showing a suitable operating position of the slot extender of the supplementary attachment with respect to the feed slot of a thermographic copying machine. The cross section is taken through line 3—3 of FIG. 2.

FIG. 1 shows the slot extender **19** fastened by bolts to the attachment member, which here contains four tray-like compartments **12**, **13**, and **14**. The whole is clamped on a thermographic copying machine **11** with the aid of clamps such as **20**.

FIG. 2 shows the clamps **20** and suitable feet **21**, preferably of a type to minimize marring of the machine's finish. **12**, **13**, and **14** are the tray-like compartments. **19** is the slot extender fastened to the attachment member by bolts such as **22**, preferably in vertically slotted holes.

In the cross-sectional view of FIG. 3, 13 and 14 are two of the tray-like compartments, **20** indicates the position of a clamp, **21** is a foot of resilient material, **22** is a fastening bolt, **23** is the slot extender of the supplementary attachment and **24** is the feed slot of the thermographic copying machine.

It will be understood that the practice of this invention is not limited to the specific embodiments which have been described above, but that various modifications may be made therein without departing from the scope of the invention as it is defined in the appended claims.

What is claimed is:

1. In a thermographic copying machine having a feed slot, a device comprising in combination an oblong slot-extending member approximately as long as the feed slot and having a width in the range of ½ to 2 inches and an attachment member having means for holding the device on the copying machine in a suitable position, the slot-extending member being fastened to the attachment member in such a way that the upper plane of the feed slot of the copying machine is in effect extended outwardly at about the original angle by contact of the outer upper edge of the slot with the appropriate long edge of the oblong slot-extending member, whose surface is approximately parallel to the upper plane of the feed slot and forms a continuous surface with the lower surface of said upper plane.

2. In a thermographic copying machine having a feed slot, a removable attachment comprising in combination an oblong base plate having attached thereto means for attaching and detaching it from the copying machine and having a perpendicular downwardly directed front wall and vertically adjustably attached thereto an oblong member having an offset angled lower portion, the lowest part of the angled portion being directed inwardly at such an angle that its outer surface is approximately parallel to the upper plane of the feed slot and its lower edge is in contact with the outer upper edge of the feed slot and forms a continuous surface with the lower surface of said upper plane.

3. In a thermographic copying machine having a feed slot, a device comprising in combination a rectangular flat sheet metal base portion having back and side walls extending upwardly, at least two of the walls having at-

tached thereto at least one downwardly directed sheet metal guide strip, and also having two spaced partitions similar to and parallel to the side walls and forming therewith three compartments of approximately equal size and having superimposed on the partitions a tray-like sheet metal member comprising a flat base portion having upwardly directed side walls and back wall, this tray-like member resembling the central compartment to the top of which it is attached, and the said device having also a downwardly directed front wall to which is removably attached an oblong sheet metal member having a flat top portion and an offset angled lower portion, the latter being formed by two successive bends, the

first bend being directed outwardly from the base and the second bend being directed inwardly at such an angle that the outer surface of the second bend is approximately parallel to the upper plane of the feed slot and the lower edge of the second bend is in contact with the outer upper edge of the feed slot and forms a continuous surface with the lower surface of said upper plane.

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