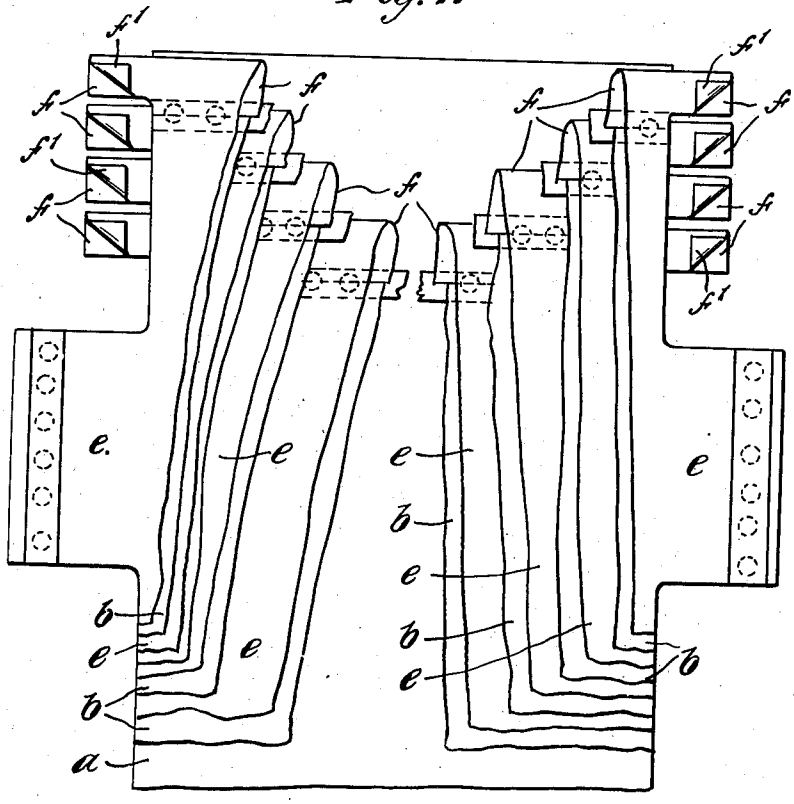
June 6, 1939. W. DOUGLAS 2,161,144

TRANSFER SHEET ARRANGEMENT, PARTICULARLY FOR USE IN TYPEWRITERS OR THE LIKE

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Fig. 1.



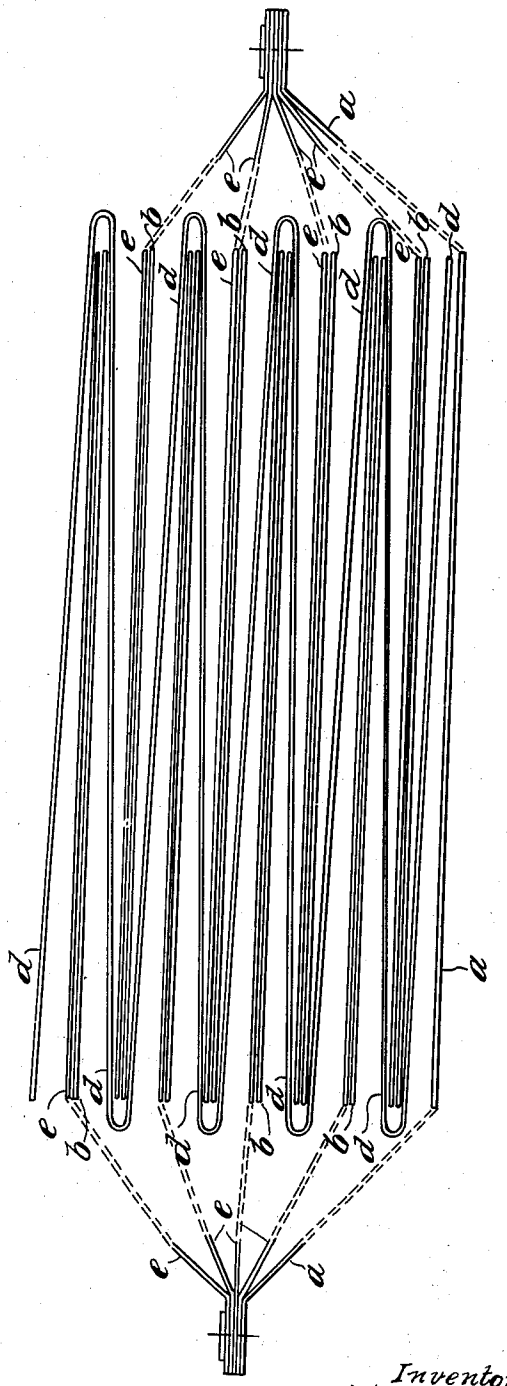
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Fig. 2.



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TRANSFER SHEET ARRANGEMENT, PARTICULARLY FOR USE IN TYPEWRITERS OR THE LIKE

William Douglas, Whitstable, England

Application October 10, 1936, Serial No. 104,971
In Great Britain October 16, 1935

2 Claims. (Cl. 282—29)

This invention relates to sets of carbon transfer sheets for use with manifold copy sheets.

Manifold copy sheets are supplied for use either as separate sheets, termed cut sheets, or in continuous webs. Continuous copy sheets are supplied either as a set of superposed webs, termed the interfold system, or as a single continuous web folded a plurality of times longitudinally, termed the fanfold system.

Continuous copy sheets are sometimes supplied with carbon transfer sheets of the same length already interleaved therewith. Also the carbon sheets of limited length are separately supplied for interleaving with continuous copy sheets, the carbon sheets having loops at one end for the reception of the transverse blades of an anchoring or retracting device, according to the kind of typewriting machine employed.

Superposed carbon transfer sheets are also supplied secured by both lateral borders to a backing sheet whereby the individual copy sheets of an interfold set of sheets can be inserted between the individual carbon sheets and displaced longitudinally relatively thereto.

The object of the present invention is to provide an interconnected set of carbon transfer sheets capable of being inserted between copy sheets, continuous web or otherwise, and manipulated together therewith.

For the above purpose, according to the invention, a set of superposed carbon transfer sheets is secured to a backing sheet along only one lateral border, means being provided for holding the set of superposed carbon transfer sheets also along a transverse border. Thus whilst the securing to the backing sheet along the lateral border ensures the correct superimposition of the carbon sheets, the holding along the transverse border enables the set of carbon sheets with interleaved copy sheets to be easily inserted into an ordinary typewriter, or to be displaced longitudinally relatively to each other, as the case may be.

To enable the interconnected set of carbon transfer sheets to be interleaved with fanfold copy sheets, some of the set of superposed carbon transfer sheets are secured to the backing sheet only along the one lateral border whereas the remainder are secured thereto only along the other lateral border. Thus a folder is produced consisting of the backing sheet with carbon sheets opening out therefrom towards the one side and also carbon sheets opening out towards the other side. With such a folder all systems of manifold copy sheets can be interleaved with and positioned relatively to the carbon sheets.

Continuous interfold copy sheets can obviously be interleaved with the carbon sheets.

Fanfold copy sheets can be interleaved by closing inwards a carbon sheet from the side adjoining the respective opening of the fanfold.

The carbon sheets need not be directly attached to the backing sheet along the respective lateral border, but each may be secured thereto through the medium of a sheet of uncarbonised paper attached for instance to the carbon sheet along a transverse border and attached along the respective lateral border to the backing sheet. These sheets of paper may each have an extension, to be torn-off before typing is commenced, covering the entire operative surface of the carbon sheet, to shield interleaved copy sheets from becoming smudged in packing or storage by the carbon.

The uncarbonised paper sheets may be integral uncarbonised portions of the paper web of the carbon sheets, folded over to form loops and extending the full length of the carbonised portions.

With continuous webs, the carbon sheets have loops along the appropriate transverse border for the insertion of the above mentioned transverse anchoring or retracting blades. To facilitate insertion, these blades are mounted, for instance on blocks, removable in sets from a base, one block with its set of blades being on each side of the path of the sheets.

The invention is illustrated more or less diagrammatically and by way of example, on the accompanying drawings, in which:

Fig. 1 is a broken plan of a set of carbon transfer sheets indirectly attached to a backing sheet and provided with anchoring or retracting loops, and

Fig. 2 is an expanded broken end view thereof with a set of interleaved fanfold copy sheets.

Referring to Figs. 1 and 2, *a* is a backing sheet of stout paper. *b* are carbon transfer sheets, secured to the backing sheet *a* some at one lateral border and others at the opposite lateral border.

As shown, the carbon sheets *b*, although secured to a backing sheet *a* some along one lateral border whilst the others are secured along the other lateral border, need not be directly attached to the backing sheet *a*, but can be attached thereto through the medium of uncarbonised paper sheets *e*. Each of these paper sheets *e* is attached to a transverse border of the respective carbon sheet *b*, or may be an uncarbonised integral extension thereof. The paper sheets *e* are folded over to form transverse loops *f*, and each

extends over its respective carbon sheet *b*. The paper sheets *e* may extend the full length of the carbon sheets *b* to prevent the latter smudging interleaved copy sheets when packed or in storage. The extensions of the paper sheets *e* are torn off, preferably at a suitably situated line of perforations, when the assemblage of carbon and copy sheets is to be used in the typewriter. An assemblage of carbon sheets *b* and paper covering sheets *e* interleaved with a set of fanfold copy sheets *d* is illustrated in a diagrammatic expanded manner in Fig. 2.

The loops *f* serve to anchor or retract the carbon sheets *b* to enable a set of continuous web copy sheets, such as a fanfold set *d*, and the carbon sheets *b* to be relatively displaced longitudinally.

It is here explained that in flat bed platen typewriting machines the machine moves over the forms and the carbon sheets are anchored and the interleaved continuous copy sheets are pulled therethrough, when a typed set of forms is to be detached from the web or webs, whereas in a cylinder platen typewriting machine the carbon sheets and continuous copy sheets are conjointly displaced in typing and the carbons are retracted relatively to the copy sheets when the typed forms are to be detached.

To anchor the carbon sheets *b* or to enable them to be retracted as the case may be, blades are inserted in the loops *f*, corners f^1 of the paper being folded back or cut away to facilitate insertion of the blades. These blades extend transversely across the usual longitudinal frame, along which the assemblage of carbon sheets *b* and copy sheets *d* is extended on its passage to the typewriting machine (not shown). Some of these blades *g* extend from one side others from the other side of the frame.

The blades are mounted by one end in stepped blocks, there being one block at each side.

On detachment of the blocks, the blades can be inserted as a set or gang in the respective loops *f*, which can be effected far more quickly than with separately removable blades.

The construction shown may be considered as and can be constituted by, two overlapped backing sheets *a*, but each with carbon transfer sheets *b* secured to a different lateral border, and either section may be used alone, with a single set of blades, or together with two sets of blades. This alternative provides a method of inserting the transfer sheets into continuous fanfold webs from an open end of the latter if the blades are preinserted in the loops of the transfer sheets. A single detachable backing sheet would perform the same function as two overlapping backing sheets, to serve as a medium positioning the lateral borders of the transfer sheets. Such backing sheet may be of a permanent nature and may be composed of more or less rigid material, such as synthetic resin, Celluloid, metal or the like, to which the lateral borders of the transfer sheets may be secured in any suitable manner, and may be considerably reduced in length so that it may even become a narrow transverse bar.

The carbon transfer sheets used in continuous form machines are usually supplied with uncarbonised looped head portions. The looped head portions of carbon transfer sheets when arranged according to the present invention are preferably also uncarbonised. They may even be of more durable material than uncarbonised paper, and may for instance be sheets of cellulose derivative composition and be used repeatedly with renewed carbonised paper extensions.

I claim:

1. A set of superposed carbon transfer sheets secured together at only one lateral border and adjacent to a transverse border, each sheet having along said transverse border a folded-over transverse loop portion.

2. In combination, a backing sheet, and a set of superposed carbon transfer sheets secured to said backing sheet some only at one lateral border and the remainder only at the other lateral border and adjacent to a transverse border, each sheet having along said transverse border a folded-over transverse loop portion.

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