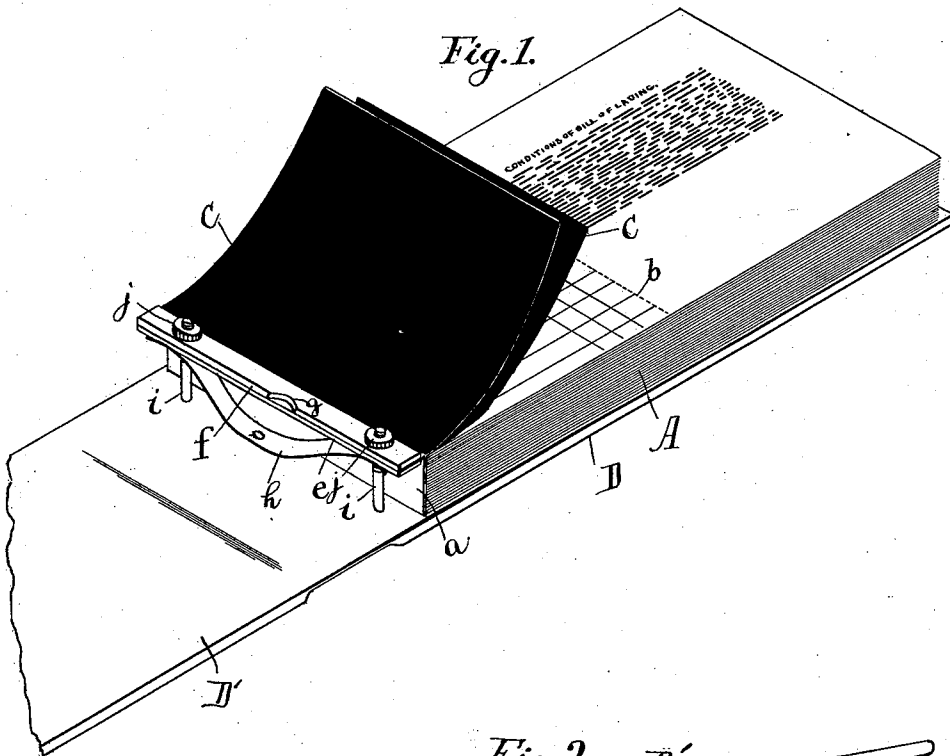
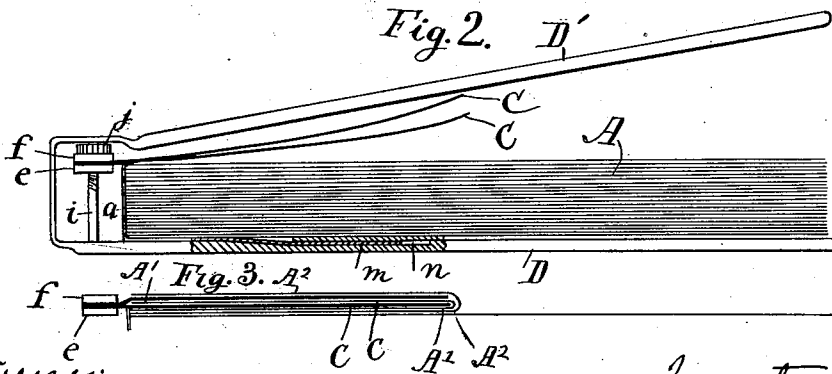
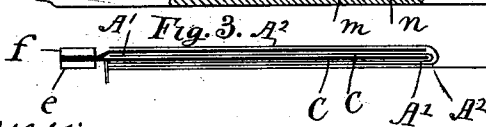


(No Model.)

F. E. BACON.
MANIFOLD COPYING DEVICE.

No. 588,311.

Patented Aug. 17, 1897.



Witness:
William J. Lato
E. J. L. L. L.

Inventor
F. E. Bacon
by *S. W. Bates*
Att'y.

UNITED STATES PATENT OFFICE.

FRANK E. BACON, OF PORTLAND, MAINE.

MANIFOLD-COPYING DEVICE.

SPECIFICATION forming part of Letters Patent No. 588,311, dated August 17, 1897.

Application filed November 18, 1895. Serial No. 569,312. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. BACON, a citizen of the United States, and a resident of Portland, in the county of Cumberland and State of Maine, have invented a certain new and useful Improvement in Manifold-Copying Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a manifold-copying device; and it is particularly designed to be used as a shipping receipt-book where either two or three loose copies of a bill of lading are required. Shippers usually require two copies of the bill, one of which they send to the railroad to be signed by the agent of the road and the other is to be forwarded with the goods. These receipts are made up in the form of double leaves divided by a line of perforations in the center, each leaf containing two similar receipts, the faces of the two bills being on opposite sides of the sheet, so that when the outer is folded over the inner the face of each is on top. As these books have hitherto been commonly constructed, the ends of the double sheets have been bound together in the ordinary manner, with a line of perforations next the bound end by which the whole double sheet may be torn out and a line of perforations in the center by which the double sheet may be torn in two parts and the two bills separated. In the form of device spoken of a carbon-sheet was bound in with the sheets at the top of the book or they were bound at intervals down through the book.

I have found by experience that there were several objections to the books made up as I have described. In the first place, it is not an easy thing to tear the double sheet out clean where it is torn on the line of perforations next to the binding, and in order to do it properly the finger must be placed on the stub close to the binding and beyond the perforations, thus pressing down the carbon and making a blot. A person using the book in a hurry is very liable to leave a portion of the leaf attached to the stub, and as these accumulate they interfere with the working of the book. Again, where the carbon-sheets,

either one or several, are bound in the book that portion of it which comes opposite the date-blank of the bill is used each time the book is used and this part of the carbon wears out when the balance of the sheet is comparatively fresh. This results in a waste of carbon-paper, which is the most expensive material used. I overcome these difficulties and construct an improved book by making my book in the form of a block or pad cemented or glued together at one edge in the same manner as a common writing-pad, and instead of binding a carbon-sheet in the book I attach it to a holder of peculiar construction, hereinafter particularly described, which is secured to the base which holds the pad adjacent to the cemented edge. The carbon can be removed from its holder and placed in different positions, so that more wear can be obtained from it. I also make the carbon-holder adjustable away from and toward the base, so that as the sheets of receipts are used from the block the position of the carbon can be adjusted to keep it always on a level with the top of the pad. The sheets being fastened together at the ends in this way can be torn out without touching the hands to the carbon and no stub is left behind.

In the accompanying drawings I have illustrated a book constructed according to my invention.

In the drawings, Figure 1 is a perspective view showing the cover open and two carbon-sheets in a raised position. Fig. 2 is a side elevation with the cover closed, and Fig. 3 is a detail showing the manner of manipulating the book to get three copies.

The sheets A are made double with a central line of perforations *b* dividing the sheets into two duplicate bills, as described. They are glued or cemented at the end *a* in the ordinary manner of forming writing-pads. The pad is removably secured to a base D by means of a tongue *m*, which slips into a pocket *n* in the base. As herein shown, the base D has connecting with it a cover D', which comes up over the top of the pad.

The carbon sheet or sheets C are held adjacent to the cemented edge of the pad by a holder which I prefer to make, as here shown, adjustable from and toward the base. The holder is composed of two superposed bars *e*

and *f*, having in each end a hole through which pass the screw-threaded bolts *i i*, the lower ends of the bolts being secured to the base. The ends of the bolts are provided
 5 with thumb-nuts *j*, by which the bars are adjusted toward the base, and a semielliptical spring *h*, secured to the base, acts against the under side of the bar *e* and forces it upward against the upper bar *f*. The carbon-sheets
 10 are clamped between the two bars. They may be removed by separating the bars, and to effect this I cut away a portion of the upper bar at *g*, so that the lower one may be depressed against the force of the spring.

15 In the ordinary use of my device where but two copies are required I use but one carbon-sheet. The outer bill is folded in over the inner one, the desired entry made on the upper bill, leaving a copy on the under one, and
 20 both are then pulled out without the necessity of touching the hand to the carbon or to the book except to steady it. As the sheets are used the carbon-sheet holder is screwed down to keep it on a level with the upper sur-
 25 face of the block. By the use of this device I am enabled to make pads of considerable thickness and containing four hundred or five hundred sheets, and no system can be suc-
 30 cessful in this line of trade where books cannot be made with a large number of sheets.

When it is desired to make three copies, the device is manipulated as follows, reference being had to Fig. 3: The upper receipt (marked *A'*) is folded over the under carbon and the
 35 second sheet (marked *A*²) is then folded over the upper carbon. Thus the outer bill of the second sheet becomes the original and the two bills of the upper sheet become two cop-
 40 ies, as their upper faces are both in contact with the lower side of a carbon-sheet. The entire upper sheet is now torn out and the

outer half of the second sheet. If another triplicate copy is wanted the next time the book is used, the inner half of the second
 45 sheet is torn out and placed between the carbons and the upper sheet then folded over the upper carbon.

Thus it will be seen that my book can be used for either duplicate or triplicate work, that it is cheaply constructed, that it can be
 50 made with many blanks, that the carbons can be shifted about to utilize all the surface, and that the sheets can be removed without pressing on the carbon or tearing the bills.

It will be understood that when the pad or
 55 block is used up another is substituted, using the same base and carbon-holder.

When only duplicate receipts are required, I make use of but one carbon-sheet at a time, but where three receipts are required, either
 60 regularly or occasionally, I use two carbon-sheets.

I claim—

The herein-described manifold-copying device consisting of a plurality of sheets bound
 65 together to form a pad or block, a base to which said block is secured, a carbon-sheet and a holder therefor consisting of two superposed clamping-bars between which the carbon is held, the said bars having a hole in each
 70 end, screw-bolts passing through said holes and secured by one end to said base, the opposite ends of said bolts being provided with nuts for forcing said bars toward said base and a spring for forcing said bars away from
 75 said base.

In witness whereof I hereunto set my hand in the presence of two witnesses.

FRANK E. BACON.

Witnesses:

H. G. PALMER,
 S. W. BATES.