

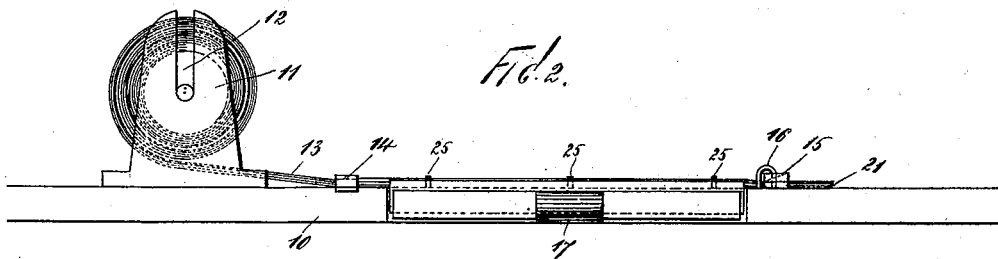
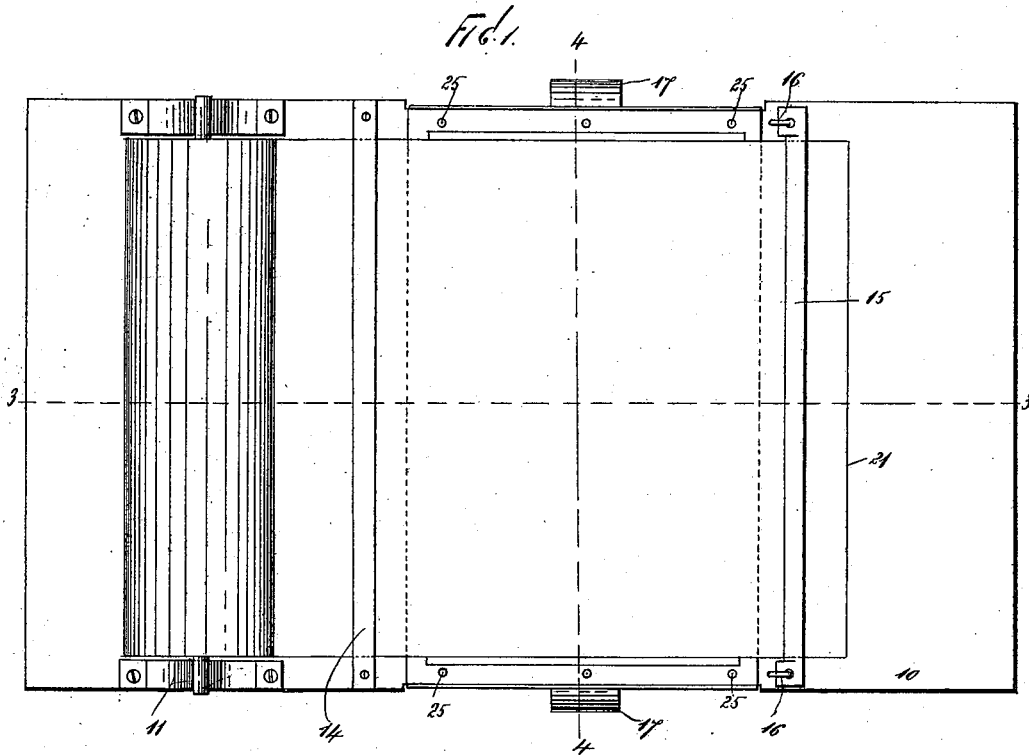
No. 648,095.

Patented Apr. 24, 1900.

A. W. BEERS.
MANIFOLD WRITING PAD.
(Application filed June 21, 1899.)

(No Model.)

2 Sheets—Sheet 1.



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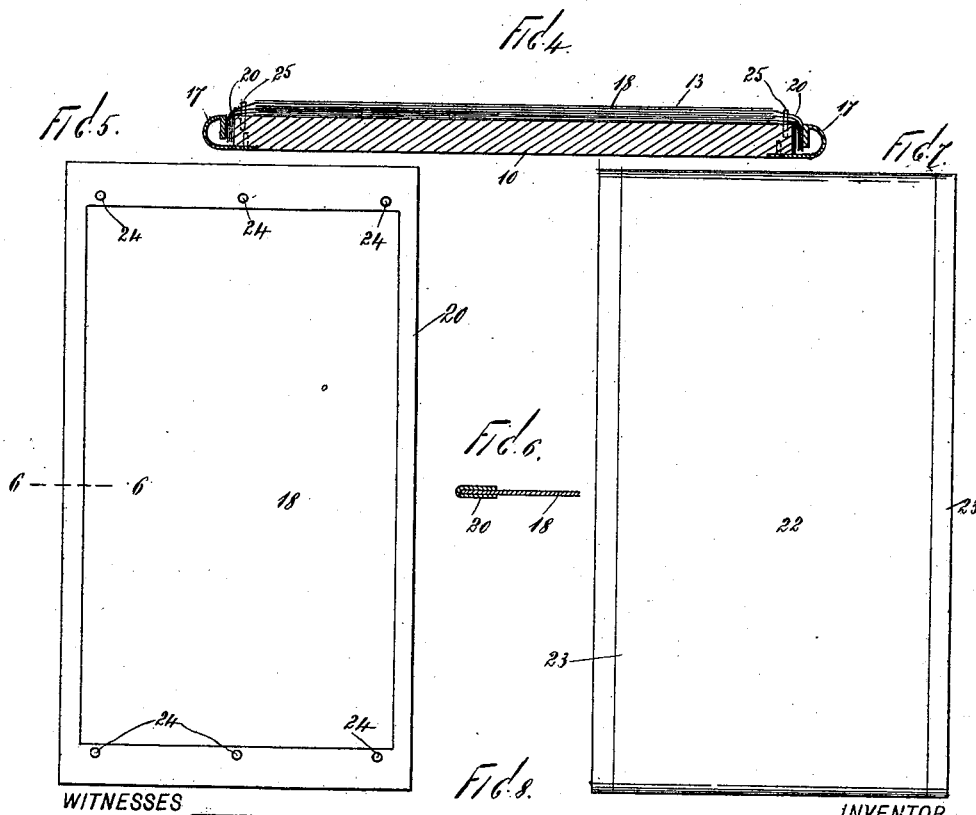
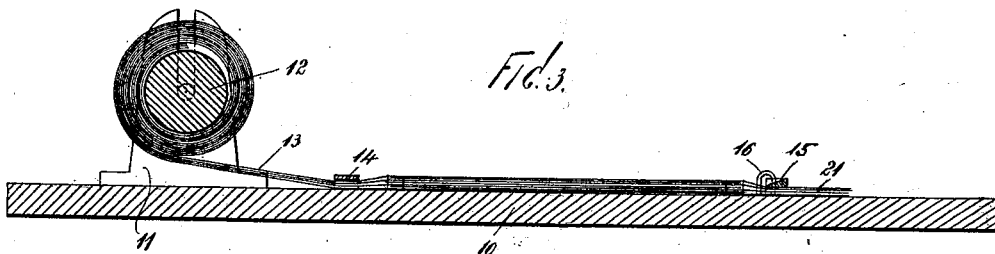
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

ALEXANDER WALKER BEERS, OF BETHLEHEM, PENNSYLVANIA.

MANIFOLD-WRITING PAD.

SPECIFICATION forming part of Letters Patent No. 648,095, dated April 24, 1900.

Application filed June 21, 1899. Serial No. 721,278. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER WALKER BEERS, a citizen of the United States, residing at Bethlehem, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Manifold-Writing Pads, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to writing-pads for producing manifold copies; and the object thereof is to provide an improved device of this class by means of which any desired number of duplicate copies may be produced at the same time that the original copy is written; and the invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a plan view of my improved writing-pad; Fig. 2, a side view; Fig. 3, a longitudinal section on the line 3 3 of Fig. 1; Fig. 4, a cross-section on the line 4 4 of Fig. 1; Fig. 5, a plan view of a sheet of carbon and frame which I employ; Fig. 6, a cross-section of one side thereof on the line 6 6; Fig. 7, a view similar to Fig. 5, showing a modified carbon-sheet arranged in the form of an endless belt; and Fig. 8, an edge view thereof.

In the drawings forming part of this specification the separate parts of my improvement are designated by numerals of reference, and in the practice of my invention I provide a plate or board 10, provided at one end and at the opposite sides with uprights 11, in which a roller 12 is mounted. The roller 12 is provided with plural strips or sheets of writing-paper, which are wound thereon, said strips or sheets being designated by the reference-numeral 13, and in front of and adjacent the roller 12 is a transverse strip or keeper 14, beneath which the strips of writing-paper are passed, and at a predetermined distance from the transverse strip or keeper 14 is a transverse pivoted combination cutter and keeper 15, which is connected with the plate or board 10 at each end by staples or pins 16, on which it is adapted to be turned, and the sheets of writing-paper are also passed under the combination keeper and cutter-blade 15.

Arranged at the opposite sides of the plate or board 10 and secured thereto midway be-

tween the keeper 14 and the combination keeper and cutter-blade 15 are spring-clamps 17 of any suitable form, and in practice I provide a plurality of carbon-sheets 18, which are secured in frames 20, composed of stiff paper or any suitable material, and the number of the carbon-sheets 18 depend upon the number of strips or sheets of paper 13 wound on the roller 12. As shown in the drawings, the strips or sheets of paper 13 on the roller 12 are four in number, and the carbon-sheets are therefore three in number, and in practice the ends of the carbon-sheets or the frames in which they are held are placed transversely of the plate or board 10 centrally thereof, and the ends of said frame 20, in which the carbon-sheets are held, are secured in place by the spring-clamps 17. In placing the carbon-sheets in position one of the same is placed across the plate or board 10 over and transversely of the bottom sheet of writing-paper, and another of the strips or sheets 13 of writing-paper is placed thereover. Another carbon-sheet is then placed in position and another sheet or strip of writing-paper placed thereon, and so on, the top sheet consisting of writing-paper. I also preferably form in the ends of the frames 20 of the carbon-sheets 18 holes 24, and through these holes when said sheets are placed together I pass pins 25, as shown in Fig. 4, the object of this arrangement being to hold said sheets in fixed relative position at all times. When the carbon-sheets are thus placed in position, the ends of the strips or sheets of writing-paper project, as shown at 21 in Figs. 1, 2, and 3, and by writing with a pencil on the top sheet of writing-paper a duplicate copy of the matter written will be produced on each of the successive sheets of writing-paper, and when the writing is finished by grasping the projecting ends of the writing-sheets at 21 they may be pulled from the roller and from between the carbon-sheets, and by turning backwardly the combination cutter and keeper 15 it will be caused to press upon the writing-sheets and the latter may be torn off, as will be readily understood. The pulling of the writing-sheets from the roller beneath the keeper 14 and cutter 15 does not interfere with the carbon-sheets, and the latter may be used until the roll of writing-paper is

entirely exhausted, after which the roll of writing-paper may be renewed and the hereinbefore-described operation repeated until the carbon-sheets are entirely worn out.

- 5 Any desired number of sheets of writing-paper may be placed on the roller 12 and a corresponding number of carbon-sheets employed, and in Figs. 7 and 8 I have shown a modification of the carbon-sheets in which a
10 carbon-sheet 22 is provided in the form of an endless belt, and side strips 23 are connected therewith, so as to give form and strength thereto, and any desired number of these endless sheets may be employed and used exactly in the manner of the sheets shown in
15 Fig. 5 and hereinbefore described.

When the form of carbon-sheets in Fig. 2 is employed, they may be turned around whenever necessary, and thus present new writing-surfaces, and this may be continued or repeated until said sheets are entirely worn out.

- By means of my improved duplicating-pad any desired number of copies may be made, the number of copies depending, as hereinbefore stated, on the number of sheets of
25 writing-paper on the roller 12 and on the number of carbon-sheets employed, and various changes in and modifications of the construction described may be made without departing from the spirit of my invention or
30 sacrificing its advantages.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

- 35 1. A portable duplicating writing-pad, comprising a plate or board, a roller mounted transversely of one end thereof and adapted to receive a plurality of sheets of paper, and a plurality of sheets of carbon which are held
40 transversely of said plate or board in front of said roller, and between which the sheets of paper are adapted to be pulled, said sheets of carbon being placed in flexible frames provided with holes at their ends, and pins which

are passed through said holes, substantially 45 as shown and described.

2. A device of the class described, comprising an oblong plate or board, a roller mounted transversely of one end thereof and adapted to receive a plurality of sheets of writing-
50 paper, a transverse keeper mounted on said plate or board adjacent to said roller and transversely of said plate or board, another transverse keeper and cutter pivotally supported transversely of the plate or board adjacent to the end thereof opposite the roller,
55 and spring-clamps secured to the plate or board midway thereof between said keeper and said keeper and cutter, and a plurality of carbon-sheets which are adapted to be
60 placed transversely of the plate or board and to be held in position by said clamps, said carbon-sheets being mounted in flexible frames having end perforations and pins which are
65 passed through said perforations, substantially as shown and described.

3. In a device of the class described, a base, a carbon-sheet which is arranged upon said base and provided with a perforated flexible
70 frame, and pins which are passed through said perforations into said base, substantially as shown and described.

4. In a device of the class described, a base, a carbon-sheet which is arranged upon said base and provided with a perforated flexible
75 frame, spring-clamps connected with said base and arranged to clamp said carbon-sheet, and pins which are passed through said perforations into said base, substantially as shown and described.
80

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 20th day of June, 1899.

ALEXANDER WALKER BEERS.

Witnesses:

F. A. STEWART,
V. M. VOSLER.