

No. 698,302.

Patented Apr. 22, 1902.

C. H. MANN.
MANIFOLDING DEVICE.

(Application filed Oct. 23, 1901.)

(No Model.)

Fig. 1.

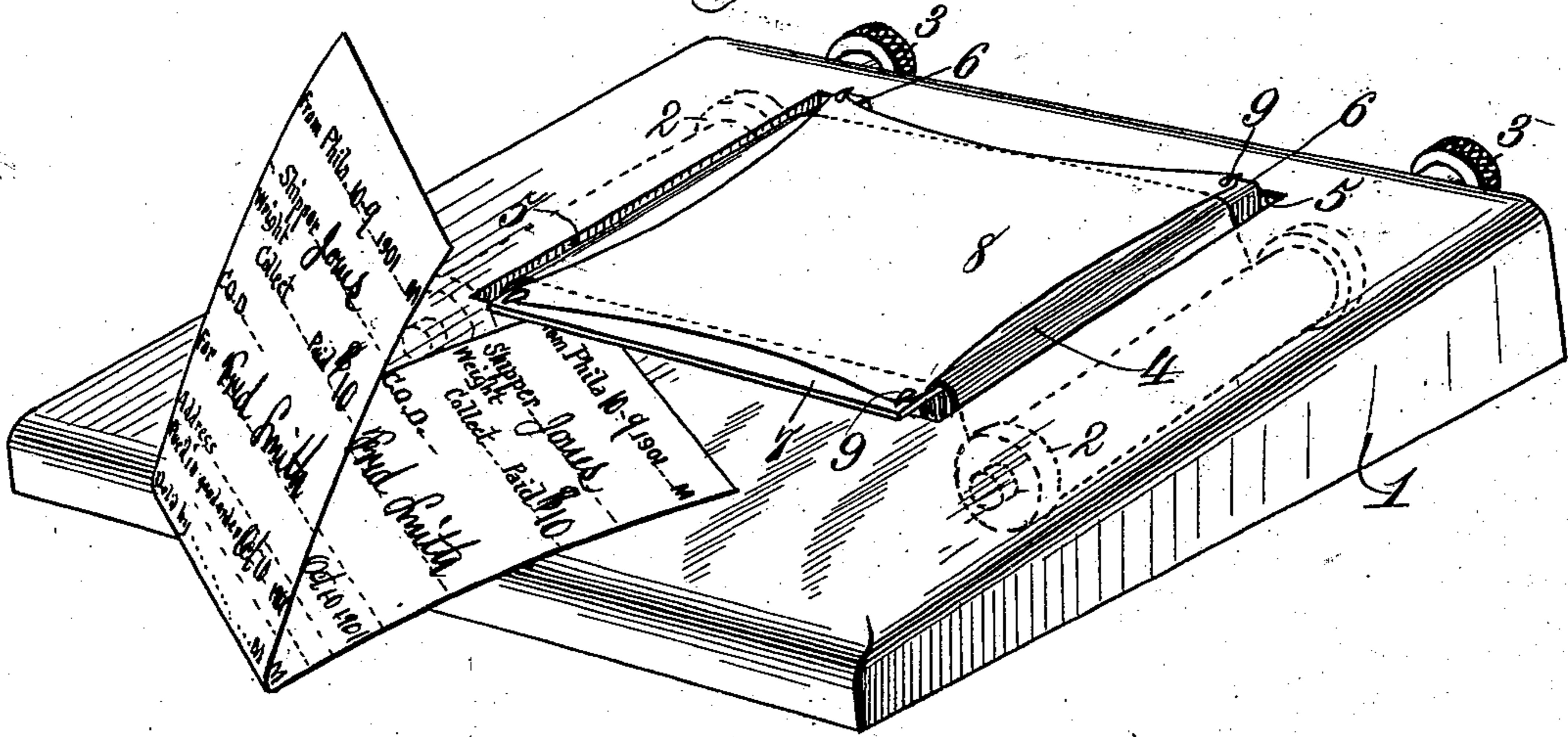


Fig. 2.

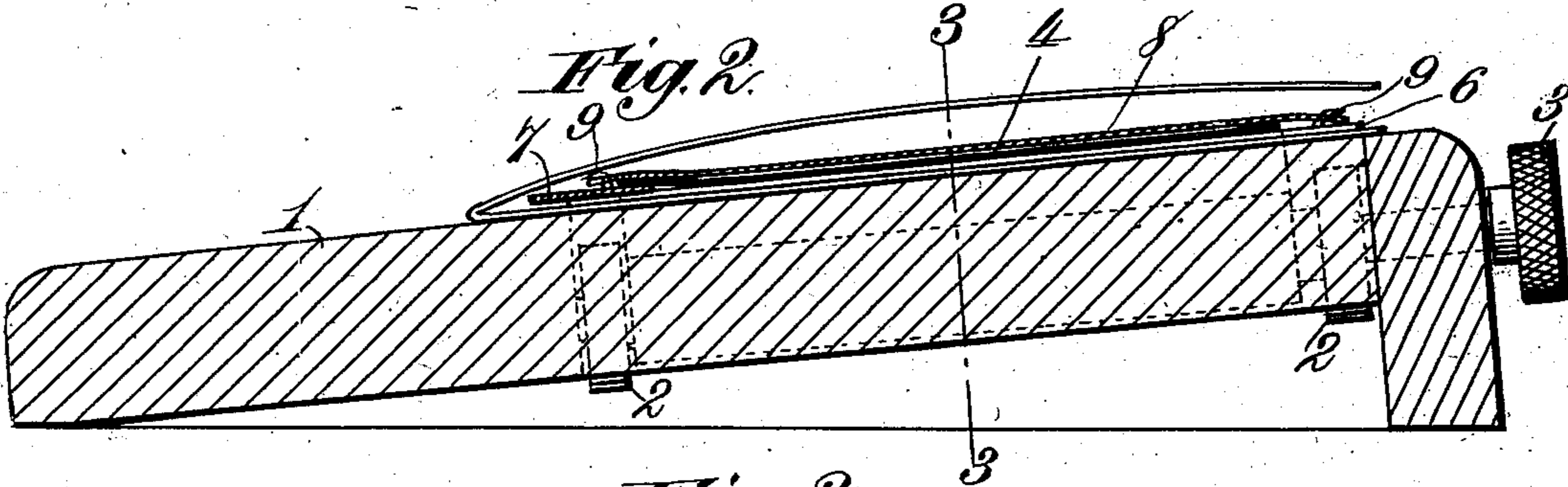


Fig. 3.

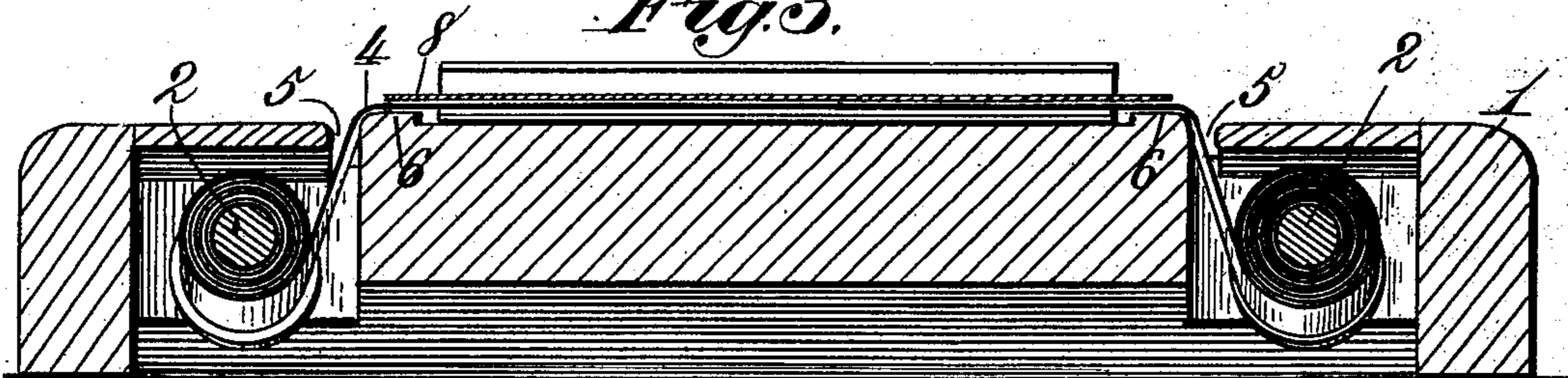
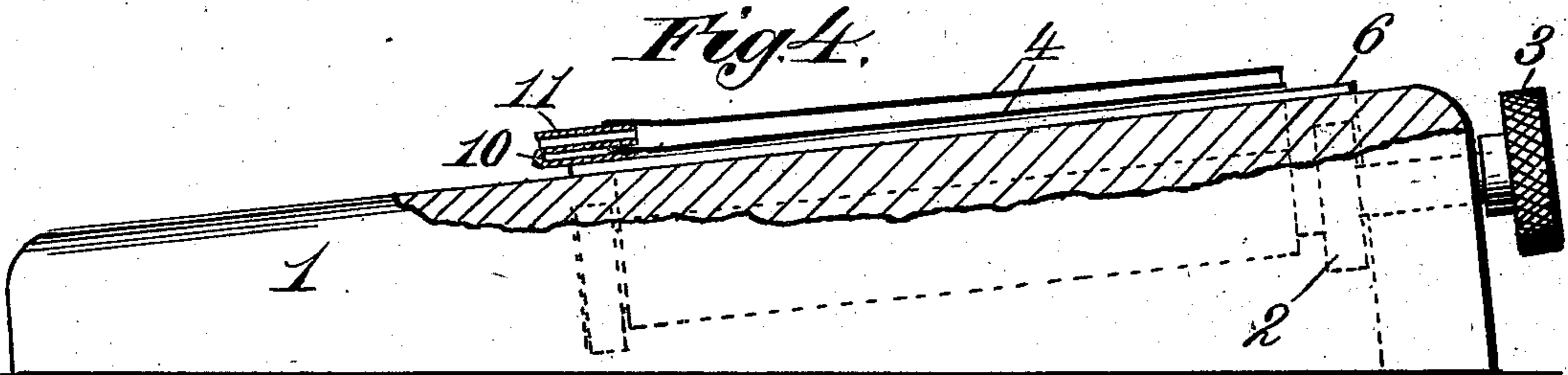


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES H. MANN, OF HADDONFIELD, NEW JERSEY.

MANIFOLDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 698,302, dated April 22, 1902.

Application filed October 23, 1901. Serial No. 79,704. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. MANN, a citizen of the United States, residing at Haddonfield, in the county of Camden and State of New Jersey, have invented new and useful Improvements in Manifolding Devices, of which the following is a specification.

My invention relates to devices for producing manifold copies, and has for its primary object to produce an improved structure wherein the carbon paper or copying-ribbon used to produce the duplicates will not require to be touched at any time by the operator and wherein the sheets to be written on may be instantly introduced into and removed from the copying position. Certain other minor novel details of construction are also embodied in my improved construction, as will be hereinafter more definitely pointed out and explained, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved device. Fig. 2 is a central vertical sectional view of the same. Fig. 3 is a vertical transverse sectional view of the same, taken on the line 3 3, Fig. 2. Fig. 4 is a side elevation, partly in section, illustrating a slight modification.

Similar numerals of reference indicate corresponding parts in the several views.

In the said drawings the reference-numeral 1 denotes a portable casing containing the parts of my improved device, the same preferably having a slightly-inclined upper surface, forming a convenient table or support for the hand in writing and being capable of transportation for use at any point where a convenient support may be had or even held by the operator while being used. Mounted longitudinally within said casing and journaled in suitable supports therein are two spools or rollers 2 for holding the web of carbon paper or ribbon, the journals of said rollers projecting through the upper end of the casing and being provided with suitable handles 3 for manipulating the same. The carbon-paper or ribbon-web 4, wound on said rollers 2, passes from one roller to the other through longitudinal slots 5 in the casing and over the surface of said casing lying between said slots, as shown. Formed integral with or fastened to said casing 1 in immediate

proximity to each slot 5 is a narrow longitudinal strip 6, over which the carbon ribbon or paper passes, the same serving when said ribbon or paper is taut to maintain it slightly above and out of contact with the table-surface. Mounted transversely of the table-surface and attached to and resting at its ends on the strips 6 is a metallic plate 7, the same being thus raised slightly from the table-surface to permit the passage thereunder of a sheet of paper. This plate 7 is located opposite the lower ends of the slots 5 and is wide enough to lie in the path of travel of the lower edge of the carbon ribbon or paper 4, which passes over the same, as clearly seen in Fig. 2.

From the above description the operation of my improved device will be understood to be as follows: To obtain an original and a carbon copy, the sheet to receive the carbon is slipped beneath the plate 7, when by reason of the lower edge of the carbon-web overlying said plate it must necessarily pass beneath said carbon ribbon or paper in position to receive an impression therefrom. Now by laying the sheet for the original on top of the carbon ribbon or paper and writing thereon the said underlying sheet will receive a duplicate impression in the usual manner. Said overlying and underlying sheets are removed as inserted, and the device is ready for another operation. It will of course be understood that as the carbon ribbon or paper 4 becomes worn a fresh surface may be presented by manipulating the handles 3.

A use to which the device is particularly applicable is in connection with the form of shipping-tags or express-checks now used by the Adams Express Company and shown in Fig. 1, the same consisting of a double printed blank formed integral at its bottom and being capable of insertion and removal at one operation. I do not, however, wish to confine myself to such form, as the device is equally applicable to use with separate original and copy sheets.

It will be understood that when a web of carbon-paper is used to produce the duplicate the same being carbonized on one side only will leave no reverse impression on the under side of the original; but when a carbon-ribbon is employed such reverse impres-

sion will be left unless prevented, said ribbon being carbonized on both sides. One means of preventing this I have shown in the drawings, the same consisting of a sheet or covering of thin paper, linen, or other suitable material 8, overlying the ribbon 4 and removably attached at its corners, preferably by means of small bent hooks 9, fixed in the strips 6, as shown. This sheet or covering will receive on its under side the impression from the ribbon 4, thus effectually protecting the overlying original and may when it becomes worn be readily removed and replaced by a fresh sheet. Still another means of accomplishing this result is by winding upon the spools 2, together with the carbon-ribbon 4, a web of thin paper that will unwind with said ribbon and overlie the same in its passage across the table.

20 In Fig. 4 I have illustrated a slightly-modified construction for producing two carbon copies, the device in this instance having a double web of carbon paper or ribbon 4 wound on the spools 2, the under ribbon passing at its lower edge between the adjacent ends of a U-shaped plate 10, while the upper ribbon passes over a plate 11, similar to the plate 7. It will thus be seen that a sheet may be slipped beneath plate 10, and thus under the lower ribbon, and a second sheet slipped between plates 10 and 11, and thus between the two ribbons, the U-shaped plate 10 preventing any possibility of its passing beneath the under ribbon, as will be readily understood.

35 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a manifolding device, a table or support, spools mounted in said table or support,

a web of carbon carried by said spools and passing over a portion of the surface of said table or support, and a plate lying in the path of travel of one edge of said carbon and over which said edge of the carbon will travel, said plate being raised slightly from the table-surface to permit the passage thereunder and under the carbon of a sheet of paper to be manifolded.

2. In a manifolding device, a casing forming a table, spools mounted in said casing beneath said table, a web of carbon carried by said spools and passing through slots in said casing over a portion of said table, strips attached to said table adjacent to said slots and over which said carbon passes to maintain it slightly above the table throughout its width, and a plate mounted on said strips and lying in the path of travel of one edge of said carbon and over which said edge of the carbon will travel, said strips serving to raise said plate slightly above the table-surface to permit the passage thereunder and under the carbon of a sheet of paper to be manifolded.

3. In a manifolding device, a table or support, spools mounted in said table or support, a web of carbon carried by said spools and passing over a portion of the surface of said table or support, a sheet of protecting material overlying said carbon where it passes over the table-surface, and means, for detachably retaining said sheet in fixed position.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES H. MANN.

Witnesses:

REUBEN FITZKEE,
J. OMAR GOOD.