

No. 608,534.

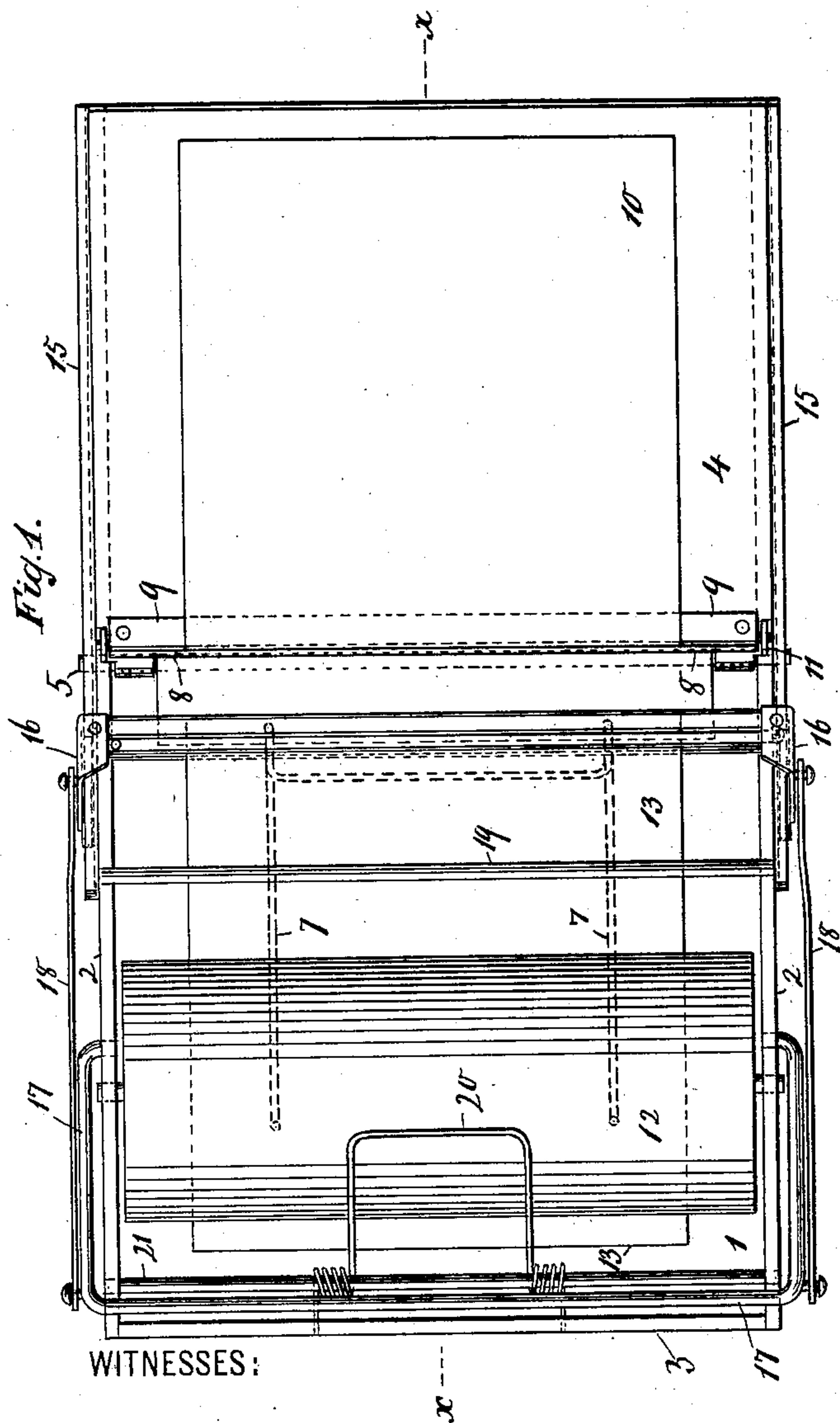
Patented Aug. 2, 1898.

F. M. TURCK.
MANIFOLDING REGISTER.

(Application filed Dec. 7, 1897.)

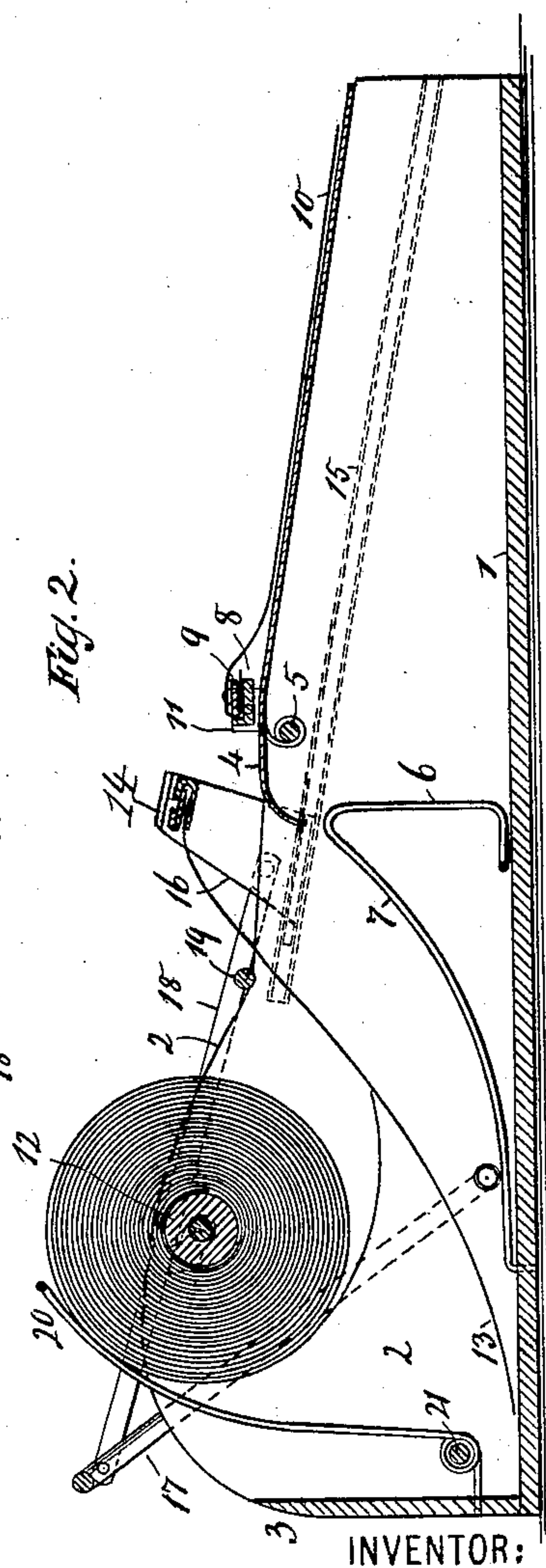
(No Model.)

3 Sheets—Sheet 1.



WITNESSES:

E. Wolff
Chas. E. Boesgen.



INVENTOR:

Frederick M. Turck.

BY

Hauff & Hauff
ATTORNEYS.

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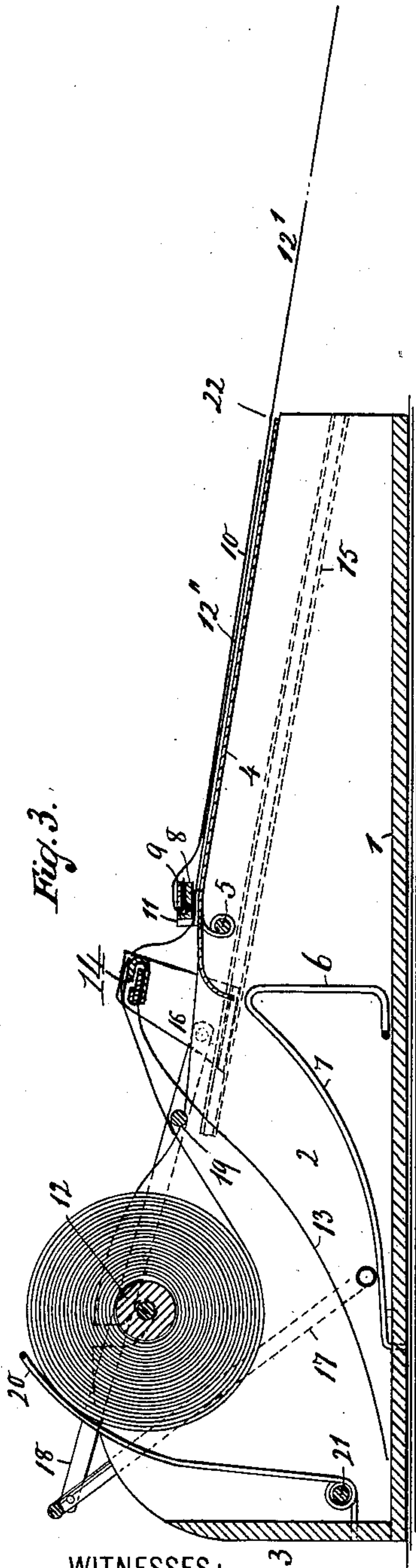
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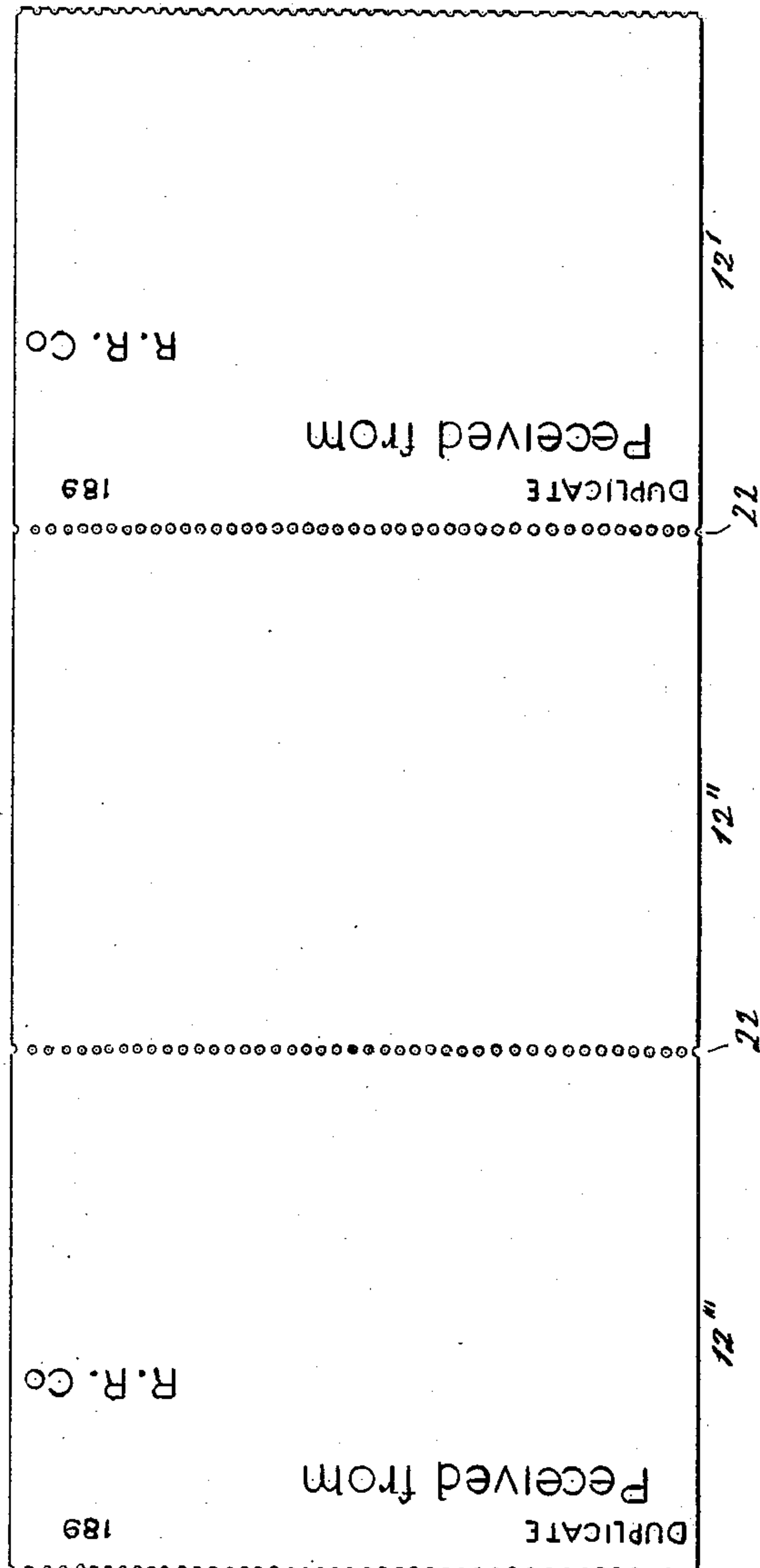
3 Sheets—Sheet 2.



WITNESSES:

E. Wolff.
Chas. E. Pausgen.

Fig. 4.



INVENTOR:

Frederick M. Turck.

BY

Hauff + Hauff
ATTORNEYS.

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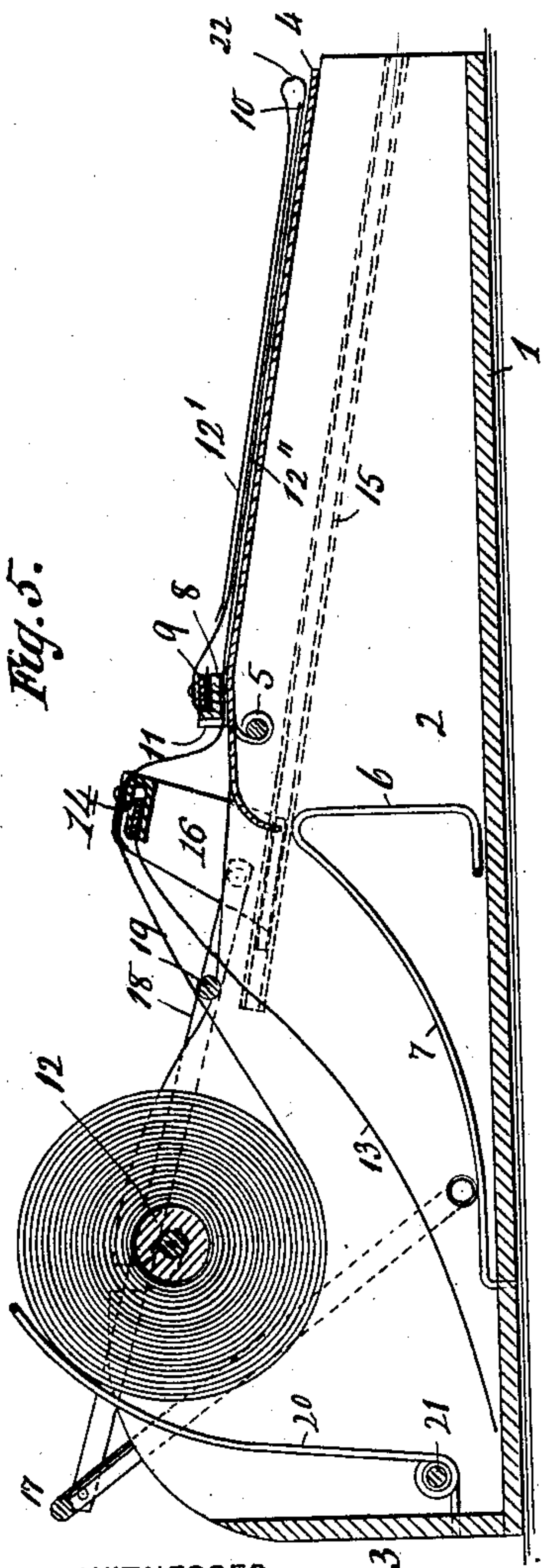
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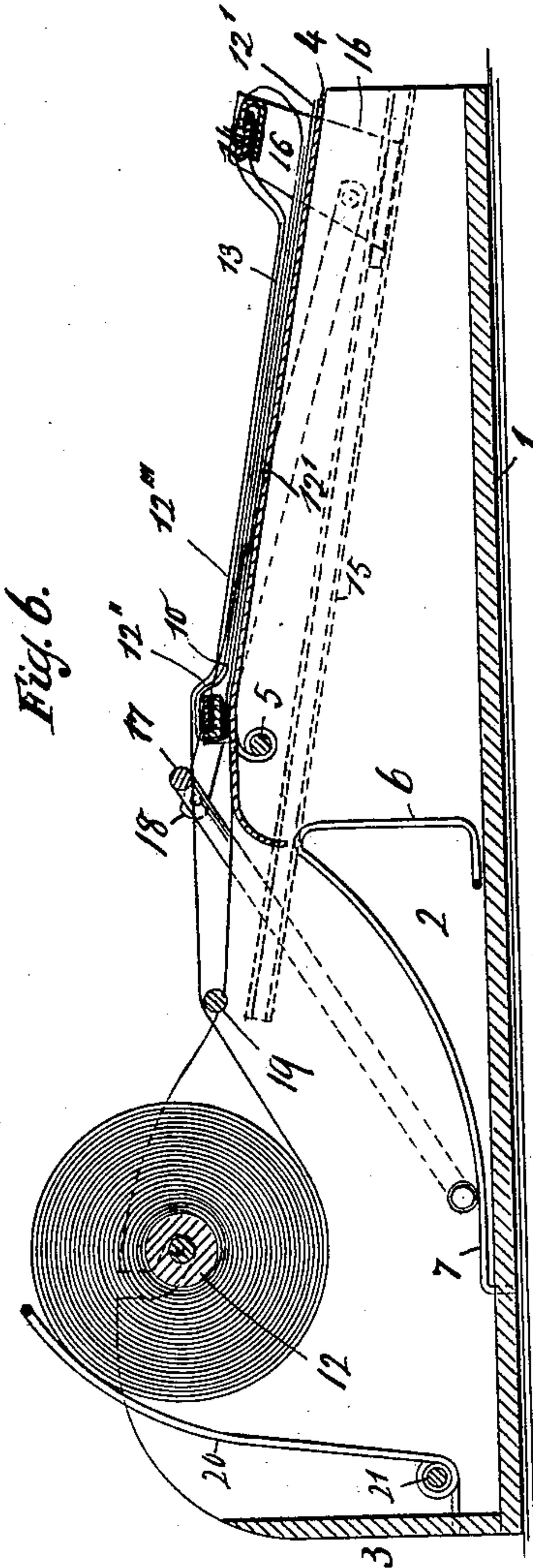
(No Model.)

3 Sheets—Sheet 3.



WITNESSES:

E. Wolff.
Chas. E. Preszger.



INVENTOR:

Frederick M. Turck.

BY

Hauff & Hauff
ATTORNEYS.

UNITED STATES PATENT OFFICE.

FREDERICK M. TURCK, OF NEW YORK, N. Y., ASSIGNOR TO PHILIP HANO,
OF SAME PLACE.

MANIFOLDING-REGISTER.

SPECIFICATION forming part of Letters Patent No. 608,534, dated August 2, 1898.

Application filed December 7, 1897, Serial No. 661,059. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK M. TURCK, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Manifold-Registers, of which the following is a specification.

This invention relates to improvements in manifold-registers set forth in detail in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a plan view of the register with the writing-paper drawn back or reeled up out of the way, so as to expose to view certain parts. Fig. 2 is a section along $x x$, Fig. 1. Fig. 3 shows the writing-paper as having had a section drawn off the supply prior to such section being doubled for duplicating. Fig. 4 shows sections of writing-paper. Fig. 5 shows the device arranged for duplicating. Fig. 6 shows the device arranged for triplicating.

The base of the device is shown as what may be called "box-form" or "receptacle, shaped," having the bottom 1, sides 2, and back 3. The writing can be performed or supported on a plate 4, which swings or is hinged or jointed to the sides 2 of the base at 5. In describing part 4 as a plate it is of course understood that this part is not necessarily made of sheet metal, as other material—such, for example, as wood or cardboard suitably stiffened—may be made to answer. This plate 4 swings or acts as a lid, so as to give access to the box-shaped base or to its contents. The front of the base or the part under the free edge of plate 4 is open, so that memoranda can be readily slipped under the plate into the base, as for temporary storage. When so slipped into the base, the memoranda can be stopped or alined by a gage or stop 6, readily formed by wire bent into suitable shape, so as to have its branches or prongs 7 adapted to fasten or pierce their ends or points into the base-bottom 1.

The plate 4 carries a bridge or carbon-sheet holder, which for convenience of description may be called a "fixed bridge," since it is mounted on swinging plate 4 so as not to slide or move along said plate. This bridge

can be formed in any practical way—as, for example, by a lower strip 8, Fig. 2, and a clamp or upper strip 9. The carbon or transfer sheet 10 being suitably gripped or held between or by the fixed bridge or clamp lies on the writing-plate or desk portion 4, so that sheets or paper arranged or folded to underlie and overlie the carbon-sheet can be made to receive an original and a duplicate or carbon memorandum, as known.

The fixed bridge is supported or held sufficiently clear from or above the plate 4 to allow a writing-sheet of paper to be slipped or run through under the fixed bridge and under the carbon-sheet 10 and to be folded or doubled over the free or front edge of the latter to overlap or lie over the top of such sheet 10. The support for the fixed bridge is shown formed by lugs or risers 11, Fig. 1, which are fixed to and extend sufficiently far up from the plate 4 to allow a writing-sheet to be slipped or passed between the plate and its bridge. The clamp 8 9 being journaled in the legs 11 can swing to a certain extent, so as to allow the carbon-sheet 10 to settle well down or come to proper position on the plate 4 for utilizing the greatest possible surface of such carbon-sheet.

The writing-paper supply can be taken from a suitable storage or roller 12.

The carbon-sheet 10, as already noticed, serves for duplicating. In case a triplicate memorandum is desired such triplicate can be obtained by the aid of such sheet 10 and of a second carbon-sheet 13. Such second sheet is carried by or clamped or secured to a carbon-sheet holder or bridge 14, movable along tracks or ways 15. Suitable runners or plates 16 are adapted to slide back and forth along the tracks or guides 15, such runners supporting the movable bridge 14. The movable bridge can be actuated or reciprocated by handle or lever 17, having the connection or links 18, extending to the movable bridge or its supports 16. The bridge 14, like bridge 8, can be formed in any suitable way to clasp or hold the edge of its transfer-sheet. The lever or bail 17 can be fulcrumed in or have its ends jointed to the sides 2 of the base. As the bail 17 is swung

it moves the bridge 14 back and forth. The supports 16 carry the bridge 14 high enough to clear or pass over the bridge 8.

In Figs. 1 and 2 the device is shown out of use, the writing-paper supply being all reeled up or wound on roller 12 and the bridge 14 drawn back, so that its carbon-sheet 13 drops or hangs into the box-shaped base.

To arrange for duplicating, draw the writing-paper from the reel over the guide-rod 19, over bridge 14, and under bridge 8, so that the free edge of the writing sheet or strip projects a suitable distance beyond the carbon-sheet 10, as seen at 12' in Fig. 3. This projecting sheet-section 12' being then folded or laid over onto the carbon-sheet 10, Fig. 5, and the section 12'' lying between the carbon-sheet 10 and writing-plate 4, a pencil-memorandum made on section 12', as known, is carboned or duplicated by sheet 10 onto section 12''. During this duplicating the movable bridge 14 is left at rest, its carbon-sheet 13 hanging idle or into the base.

For triplicating, Fig. 6, the conditions are somewhat changed. In duplicating, section 12' serves for the pencil or original memorandum and section 12'' for the carbon or duplicate. In triplicating, section 12' receives the triplicate or second carbon memorandum—that is to say, the carbon memorandum now produced from sheet 10. The section 12'' in triplicating receives the duplicate memorandum or the memorandum from the carbon-sheet 13 of movable bridge 14, and the original of the triplicates or the pencil memorandum is made on the section 12''', lying next the main supply or body of the writing-paper. The writing-paper, instead of having sections doubled about the free edge of the carbon-sheet, as in duplicating, such writing-sheet during triplicating has its free edge or the free edge of section 12' lying at the free edge of carbon-sheet 10, the sections 12' and 12'' doubling about the fixed bridge 8 to inclose such sheet 10, while the bridge 14, with its sheet 13, has been run forward or into action, so that the memorandum-sections 12'' and 12''' double or fold about the movable bridge 14 to inclose carbon-sheet 13.

The carbon-sheets can be formed each with a marking-face turned downward or toward plate 4, or, if desired, one or both carbon-sheets can have both faces carboned or adapted for marking, so as to produce reverse memorandums, desired at times with a view to preventing or aiding to prevent erasures, alterations, or the like.

When arranging the device for triplicating, Fig. 6, draw the free edge of the writing-paper or the free edge of section 12', as before, over bridge 14 and under bridge 8, passing under carbon-sheet 10 and over plate 4, until the free edge of the writing-paper stops at the free edge of carbon-sheet 10 instead of passing beyond it, as shown in Fig. 3, for duplicating. The bridge 14, being then swung forward to the position shown in Fig. 6, not

only carries with it the carbon-sheet 13, but also loops or doubles the sections 12'' and 12''' about such bridge 14, while at the same time smoothing or drawing section 12'' over the bridge 8. The sections 12' and 12'' now loop about bridge 8, and the carbon-sheet 10 and the sections 12'' and 12''' loop about the forwardly-thrown bridge 14 and carbon-sheet 13. Sliding bridge 14 back to the position shown in Fig. 1 will throw the carbon-sheet 13 back into the base or out of action.

To prevent the paper-supply rotating too easily or by accident, a brake or spring 20 is applied. This brake is readily supported by base-back 3, and such spring can be suitably coiled or braced about or against a rod 21 in the base.

As the writing-paper whether for duplicating or triplicating has to be passed only under one bridge—namely, the fixed bridge 8—the device can be easily managed. The folding movement of the movable bridge can be readily effected by the handle or lever 17, which swings back and forth over roller 12 and is in position to be readily reached or grasped, and a simple swinging movement of this handle is all that is required for running the movable bridge back and forth. The sliding bridge being accurately guided by the parallel tracks or ways 15, located at opposite sides of the base, said bridge is kept squarely in position or so held or alined as to make the folds in the writing-sheet or between writing-sections fall accurately into line or along the rows of perforations frequently employed between the sections for allowing ready separating and ripping apart of the latter. When the sections are bounded or marked by rows of perforations, the length of stroke or travel of the movable bridge must of course correspond to the spacing or distance between successive rows of perforations, so that when the movable bridge has finished its forward or folding stroke, Fig. 6, one fold or row of perforations will fall accurately along the fixed bridge 8, while another such row or fold falls along the movable bridge. Such perforations or weakenings between sections are indicated at 22, Figs. 3 and 4. These sections can of course be formed as blanks—that is to say, provided with printing or other matter to facilitate the making of the memoranda, according to the business or department in which said device is used. Thus, for example, in railroad freight-offices triplicate sections could be arranged or noted, so that one of the triplicates goes to the agent for the railroad company and the other two memoranda to the consignee and consignor, respectively.

What I claim as new, and desire to secure by Letters Patent, is—

1. A manifolding-register comprising a base, a writing-plate, a fixed carbon-sheet holder or bridge carrying a carbon-sheet, a movable carbon-sheet holder or bridge carrying a carbon-sheet, and a writing-paper supply

ply arranged to feed the writing-sheet over the movable and under the fixed bridge substantially as described.

2. A manifolding-register comprising a base, a writing-plate, a carbon-sheet holder or bridge fixed to the plate, a movable carbon-sheet holder or bridge carrying a carbon-sheet, and a writing-paper supply arranged to feed the writing-sheet over the movable and under the fixed bridge substantially as described.

3. A manifolding-register comprising a base, a hinged or swinging writing plate or lid, a carbon-sheet holder or bridge fixed to the plate, a movable carbon-sheet holder or bridge carrying a carbon-sheet, and a writing-paper supply made to feed the writing-sheet over the movable and under the fixed bridge substantially as described.

4. A manifolding-register comprising a writing-plate, a fixed carbon-sheet holder or bridge, a movable carbon-sheet holder or bridge, and a writing-paper supply, said movable bridge being made to carry its carbon-sheet bodily over the fixed carbon-sheet substantially as described.

5. A manifolding-register, comprising a base, a writing-plate, a fixed carbon-bridge, a movable bridge having a carbon-sheet attached thereto at one end and movable bodily therewith, and a writing-paper supply carrying a writing-sheet, said movable bridge being arranged to engage with and fold the writing-sheet over the fixed bridge and to carry said sheet forward over the said plate to form a plurality of superposed sheets or writing-surfaces with interposed carbon-sheets, substantially as described.

6. A manifolding-register comprising a base, a writing-plate, a fixed carbon-sheet holder or bridge, a movable bridge bodily

carrying a carbon-sheet, and a writing-paper supply, said movable bridge being made to fold or double the writing-paper over the fixed bridge substantially as described.

7. A manifolding-register comprising a base, a writing-plate, a fixed bridge, a movable bridge, a writing-paper supply, and a lever for actuating the movable bridge substantially as described.

8. A manifolding-register comprising a base, a writing-plate, a fixed bridge, a movable bridge, a writing-paper supply, a lever fulcrumed to the base, and a connection or links between the movable bridge and lever substantially as described.

9. A manifolding-register comprising a base, a writing-plate, a fixed bridge, a movable bridge, a writing-paper supply and tracks or ways for the movable bridge substantially as described.

10. A manifolding-register comprising a base, a writing-plate, a fixed bridge, a movable bridge, a writing-paper roll or supply, and oppositely-located parallel tracks on the base for keeping the movable bridge squarely in position substantially as described.

11. A manifolding-register comprising a base, a writing-plate, a fixed bridge, a movable bridge, and a writing-paper supply carrying a writing-sheet divided into connected sections, the play of the movable bridge being regulated to correspond to the length of said sections substantially as described.

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

FREDERICK M. TURCK.

Witnesses:

W. C. HAUFF,

E. F. KASTENHUBER.