

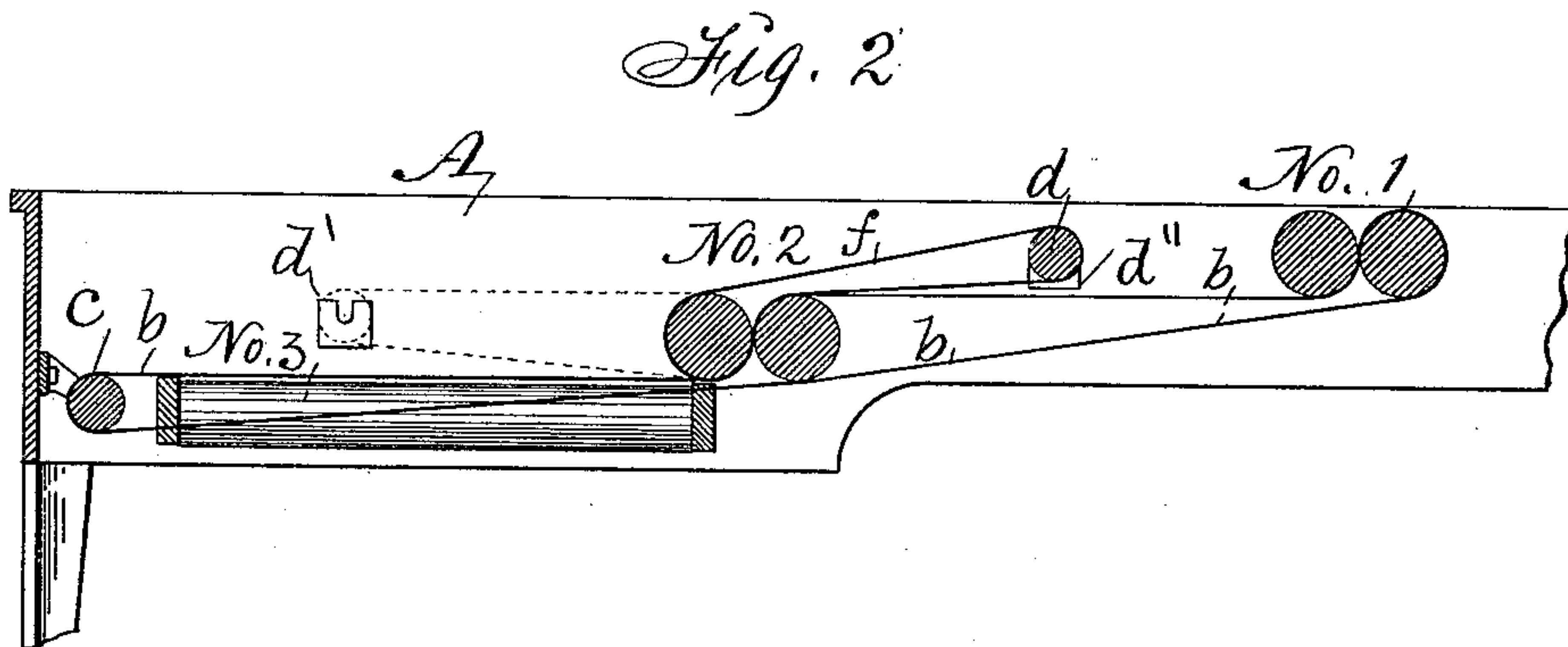
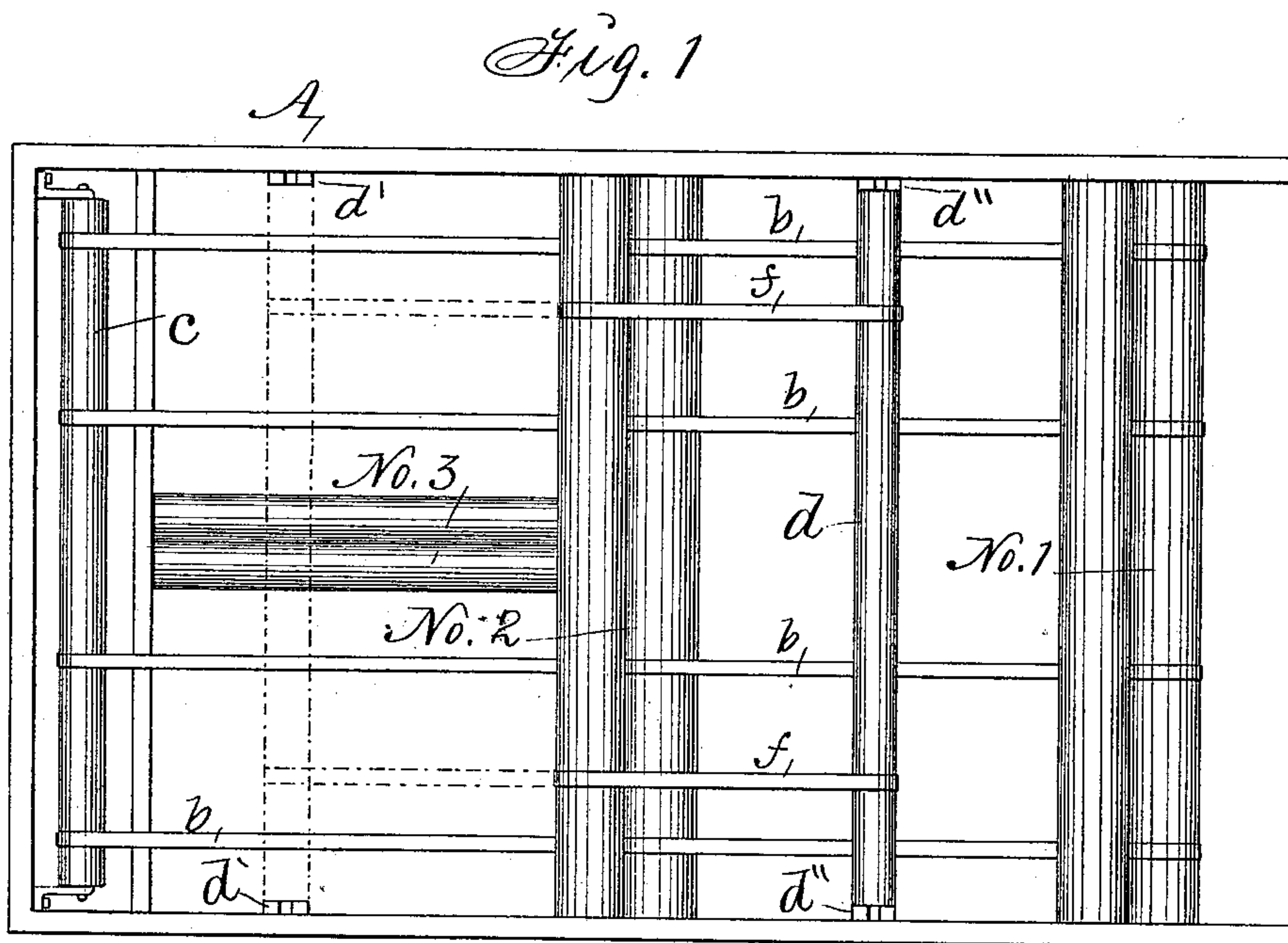
(No Model.)

T. C. DEXTER.

SHEET SWITCHING DEVICE FOR PAPER FOLDING MACHINES.

No. 332,332.

Patented Dec. 15, 1885.



Witnesses:
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UNITED STATES PATENT OFFICE.

TALBOT C. DEXTER, OF DES MOINES, IOWA.

SHEET-SWITCHING DEVICE FOR PAPER-FOLDING MACHINES.

SPECIFICATION forming part of Letters Patent No. 332,332, dated December 15, 1885.

Application filed March 5, 1885. Serial No. 157,850. (No model.)

To all whom it may concern:

Be it known that I, TALBOT C. DEXTER, a citizen of the United States of America, and a resident of the city of Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Sheet-Switching Device for Paper-Folding Machines, of which the following is a specification.

In machines where there are two pairs of folding-rollers in parallel positions but in different horizontal planes for the purpose of making parallel folds in a sheet in succession, it is sometimes desirable to make one pair of the parallel rollers inoperative as folding-rollers and simply use them to aid in advancing the sheet from the first pair of the parallel rollers to a pair of rollers extending therefrom at right angles, as required to make two folds in succession at right angles to each other, and I accomplish the results contemplated by the simple device illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of a section of a machine, and Fig. 2 a transverse section of the same, showing two pairs of folding-rollers in parallel position, and a third pair extending at right angles therefrom and my sheet-switching device combined therewith.

Jointly considered, these figures clearly show the construction, application, operation, and utility of my invention.

A represents the frame of a machine.

Nos. 1 and 2 are pairs of folding-rollers in parallel positions, but in different horizontal planes.

No. 3 is a third pair of folding-rollers extending at right angles, and in a lower plane, from the pair of rollers No. 2.

b b represent a series of sheet-carrying tapes passed around the first one of each of the Nos. 1 and 2 pairs of rollers and extended parallel with the No. 3 rollers to a tape roller or pulleys *c*, supported by the frame.

d is an adjustable tape-carrying roller that has two sets of open bearings, *d'* and *d''*, formed in or fixed to the frame in such positions relative to the three pairs of folding-rollers that it can be readily shifted from one set of bearings to the other to adjust tapes.

f f represent a series of sheet-carrying and sheet-switching tapes stretched over the adjustable roller *d* and the roller in the second and lowest pair of parallel rollers that is nearest to the pair of rollers No. 3. When the roller *d* is in the bearings *d'*, the tapes *f* will act in concert with the tapes *b* in carrying the folded sheet from the No. 1 pair of rollers and placing it across the No. 2 pair of rollers, as required to make a second fold parallel with the first fold.

To prevent parallel folds being made, I simply lock or remove the folding-blade of the No. 2 pair of rollers and shift the shaft *d* from the bearings *d'* to the bearings *d''*, so that the tapes *f* will be on top of the advancing sheet and direct it down between the No. 2 pair of rollers, to be from thence carried by the tapes *b* and placed over the No. 3 pair of rollers, as required to make a fold at right angles to the fold previously made between the No. 1 pair of rollers.

I am aware that two rollers and a series of tapes have been carried in an adjustable frame for the purpose of changing the direction of a sheet in a paper-folding machine; but my manner of combining a single roller and a series of sheet-directing tapes with three pairs of folding-rollers so that a sheet can be carried through the second pair of rollers without producing two parallel folds in succession, whenever desired, is novel and greatly advantageous.

I claim as my invention—

A sheet-switching device for paper-folding machines, composed of a roller, *d*, a series of endless tapes, *f*, and two pairs of roller-bearings *d'* and *d''*, in combination with pairs of folding-rollers No. 1, No. 2, and No. 3, a series of endless sheet-carrying tapes, *b*, and a series of pulleys or a roller, *c*, to support the tapes *b*, to operate in the manner set forth, for the purposes stated.

TALBOT C. DEXTER.

Witnesses:

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