(No Model.) 2 Sheets—Sheet 1.

W. H. HONISS.

MANUFACTURE OF PAPER TUBING.

No. 365,815. Patented July 5, 1887.

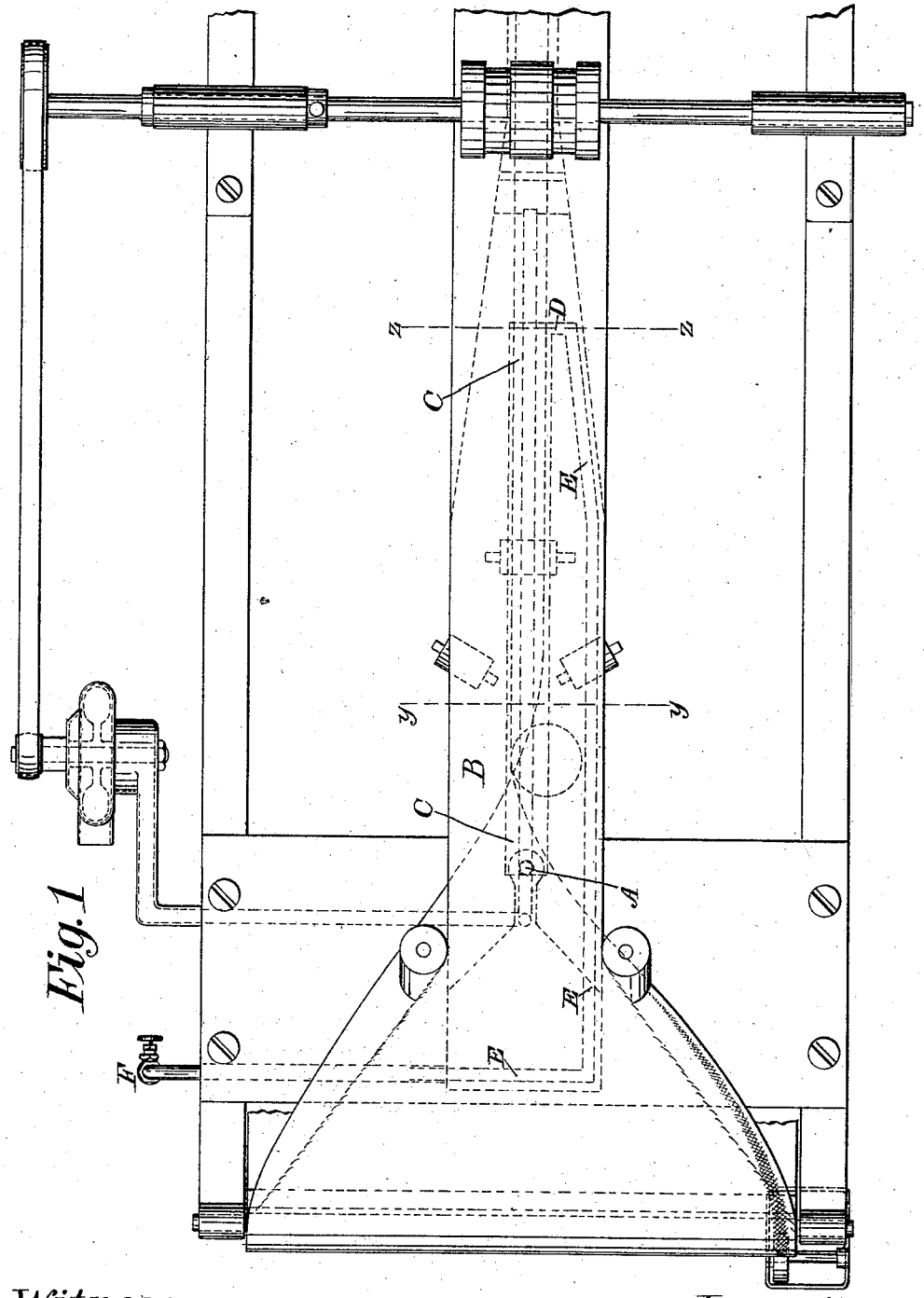


Fig. 1

Witnesses:
William A. Lorenz.
Henry T. Brück

Inventor:
William H. Honiss.

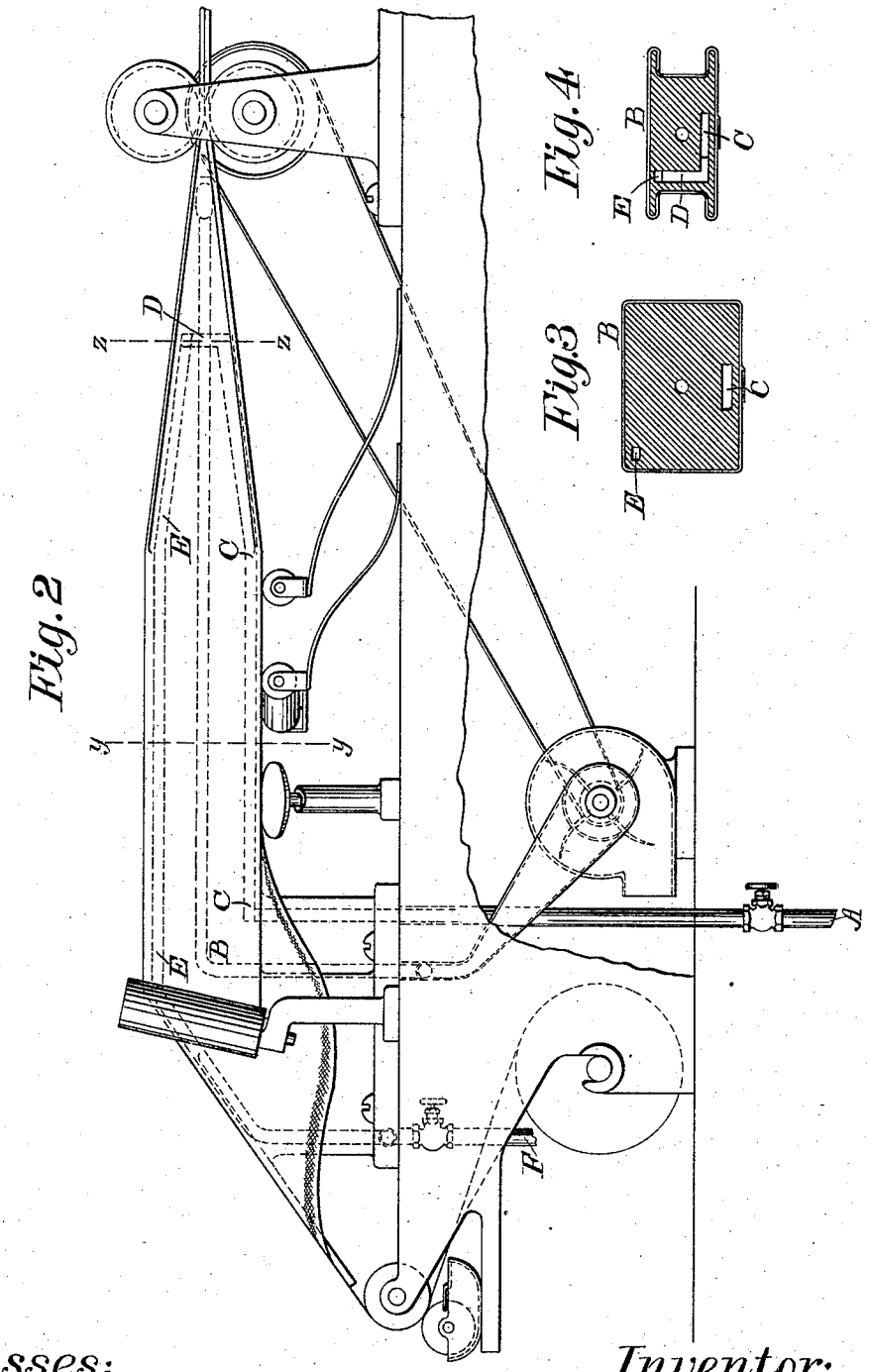
N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

W. H. HONISS.

MANUFACTURE OF PAPER TUBING.

No. 365,815. Patented July 5, 1887.



Witnesses:
William A. Lorenz.
Henry T. Brück

Inventor:
William H. Honiss.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM H. HONISS, OF HARTFORD, CONNECTICUT, ASSIGNOR TO FELIX W. LEINBACH AND CLARENCE A. WOLLE, BOTH OF BETHLEHEM, PENNSYLVANIA.

MANUFACTURE OF PAPER TUBING.

SPECIFICATION forming part of Letters Patent No. 365,815, dated July 5, 1887.

Application filed March 20, 1886. Serial No. 195,913. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HONISS, of Hartford, Connecticut, have invented an Improvement in the Manufacture of Paper Tubing, of which the following description and claim constitute the specification, and which is illustrated by the accompanying two sheets of drawings.

This invention is a process of simultaneously heating, pasting, and drying continuous paper tubing preparatory to manufacturing such tubing into paper bags.

Figure 1 is a plan view of an apparatus suitable to be used in performing the process. Fig. 2 is a side elevation of the same. Figs. 3 and 4 are cross-sections on the lines *y y* and *z z* of Figs. 2 and 3, respectively.

The apparatus shown in these drawings is identical with that shown in Figs. 2 to 9, inclusive, of the drawings of Letters Patent of the United States No. 331,721, granted December 1, 1885, except that the present apparatus has some additional features, now to be explained.

A is a steam-pipe extending from a steam-boiler (not shown in the drawings) to the under side of the rear part of the rectangular portion of the former B, where it communicates with the cavity C. That cavity extends from its connection with the pipe A directly over the central longitudinal zone of the under side of the former B, as far forward in that former as the dotted line *z z*. It there connects with a smaller angular cavity, D, and the latter connects with the cavity E, which extends thence to the rear end of the former B, where it connects with the exhaust-pipe F.

The new process is as follows: While the paper is being drawn over the former B and folded and pasted together into a rectangular tube around the rectangular part of the former in the manner set forth in said Letters Patent, steam is being admitted into the cavity C from the pipe A, and driven from that cavity through the smaller cavities D and E into the exhaust-pipe F. The presence and passage of steam along the cavity C heats that wall of the former B which separates that cavity from that part of the surface of the under side of the former against which the two borders of the paper are being folded and pasted together. That heating dries the applied paste and dries the adjacent paper, and, indeed, it heats the paper sufficiently to dry the paste, which is soon after applied to the bottom folds of bag-blanks cut from the continuous tubing manufactured on the apparatus shown in these drawings.

When paper bags are made on the machine shown and described in Letters Patent of the United States No. 331,722, of December 1, 1885, they require to be dried in a separate apparatus, as is plainly stated in those Letters Patent; but the use of my present process entirely obviates such subsequent drying, and will enable that machine or any similar apparatus to produce paper bags already dry enough to be packed for shipment.

I claim as my invention—

The process consisting in simultaneously drawing a continuous paper tube around and along a former and forcing a stream of steam through a series of cavities in that former, and thus continually heating and drying the paper tube by means of heat passing from the steam through the walls of the former into the fibers of the paper, all substantially as described.

February 19, 1886.

WILLIAM H. HONISS.

Witnesses:
ALBERT H. WALKER,
WILLARD EDDY.