

J. ARKELL.
PAPER-BAGS.

No. 185,469.

Patented Dec. 19, 1876.

Fig. 1.

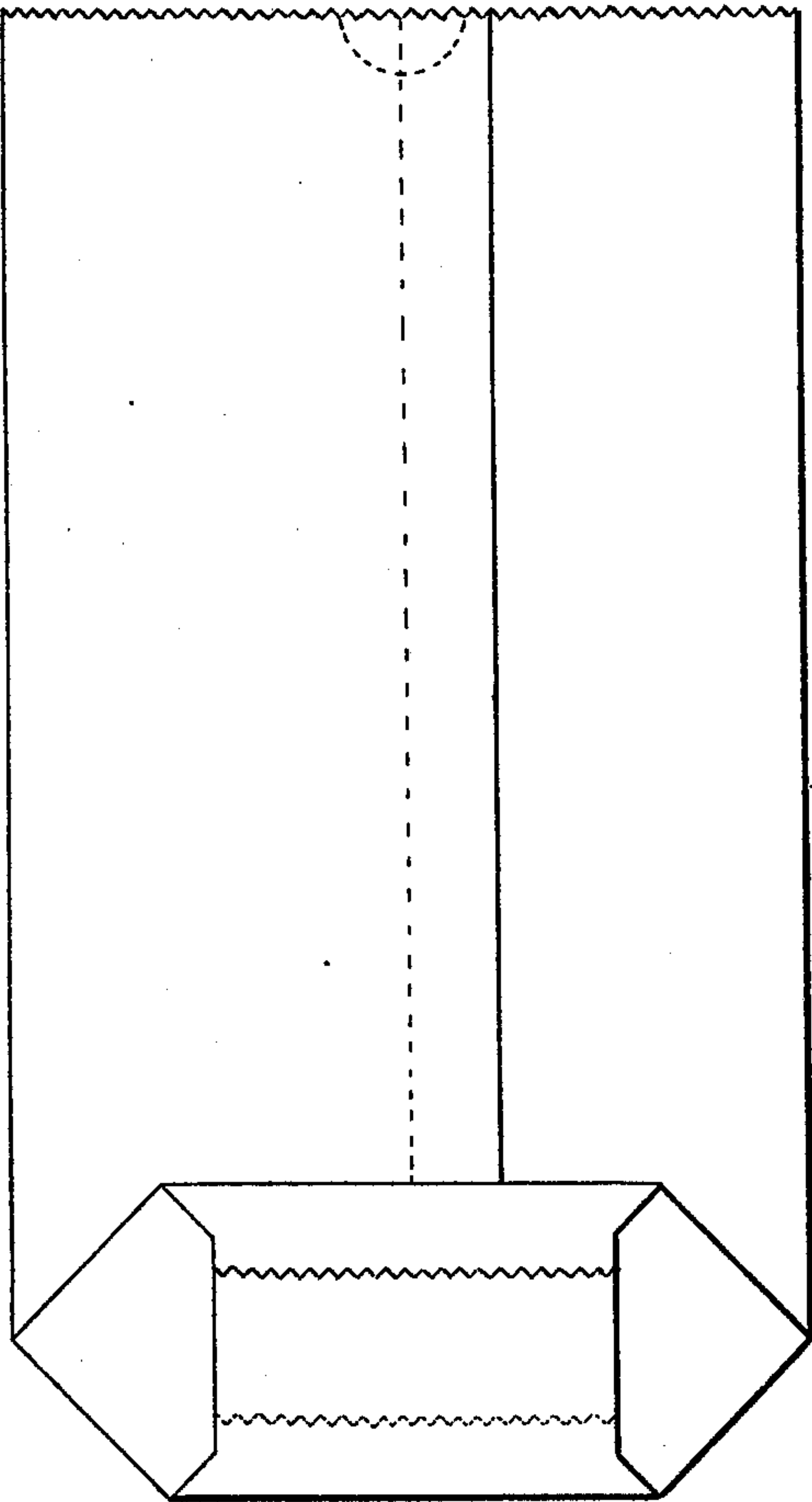
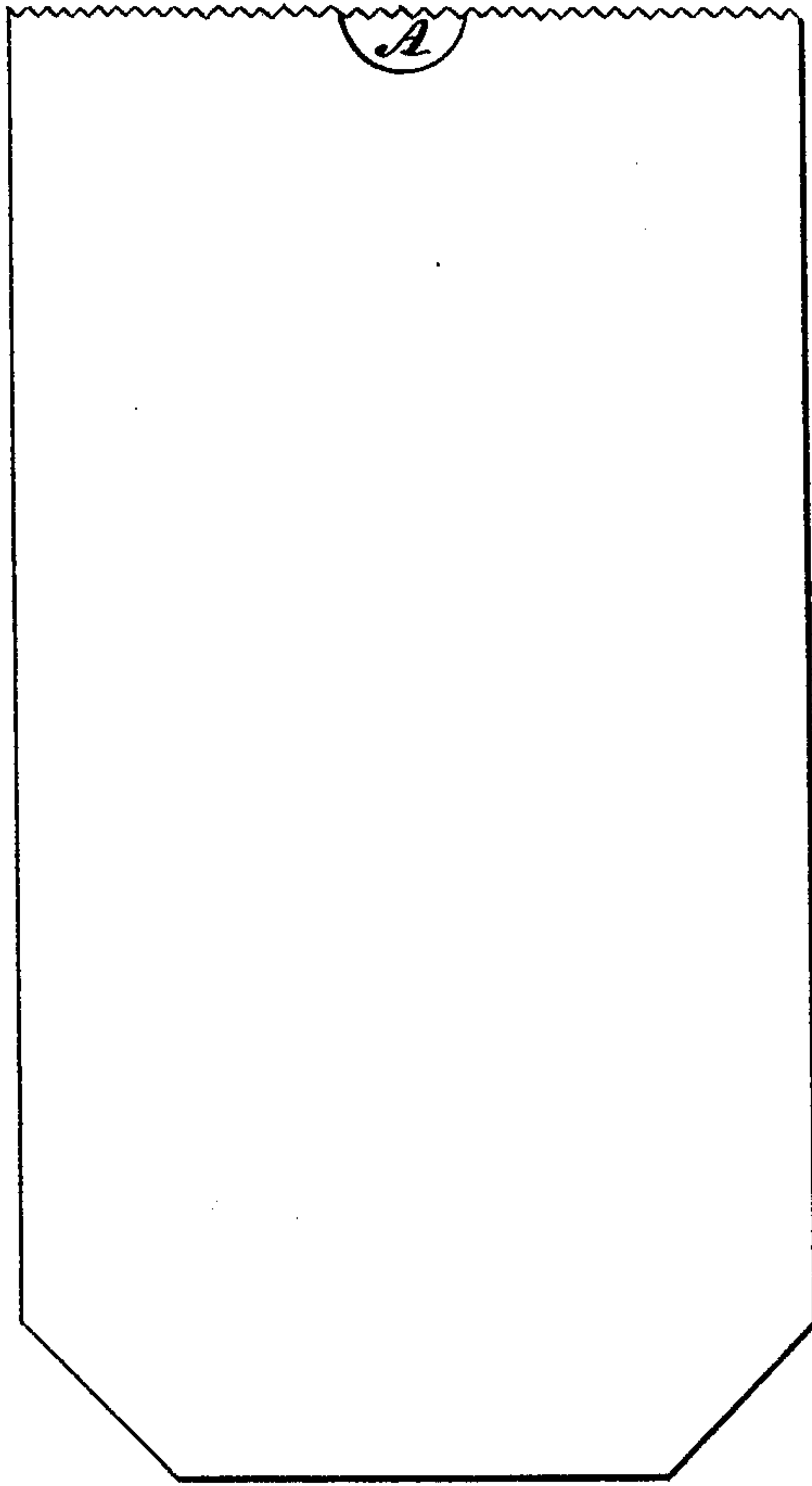


Fig. 2.



Witnesses:
E. Wolff.
Jacob Stibel

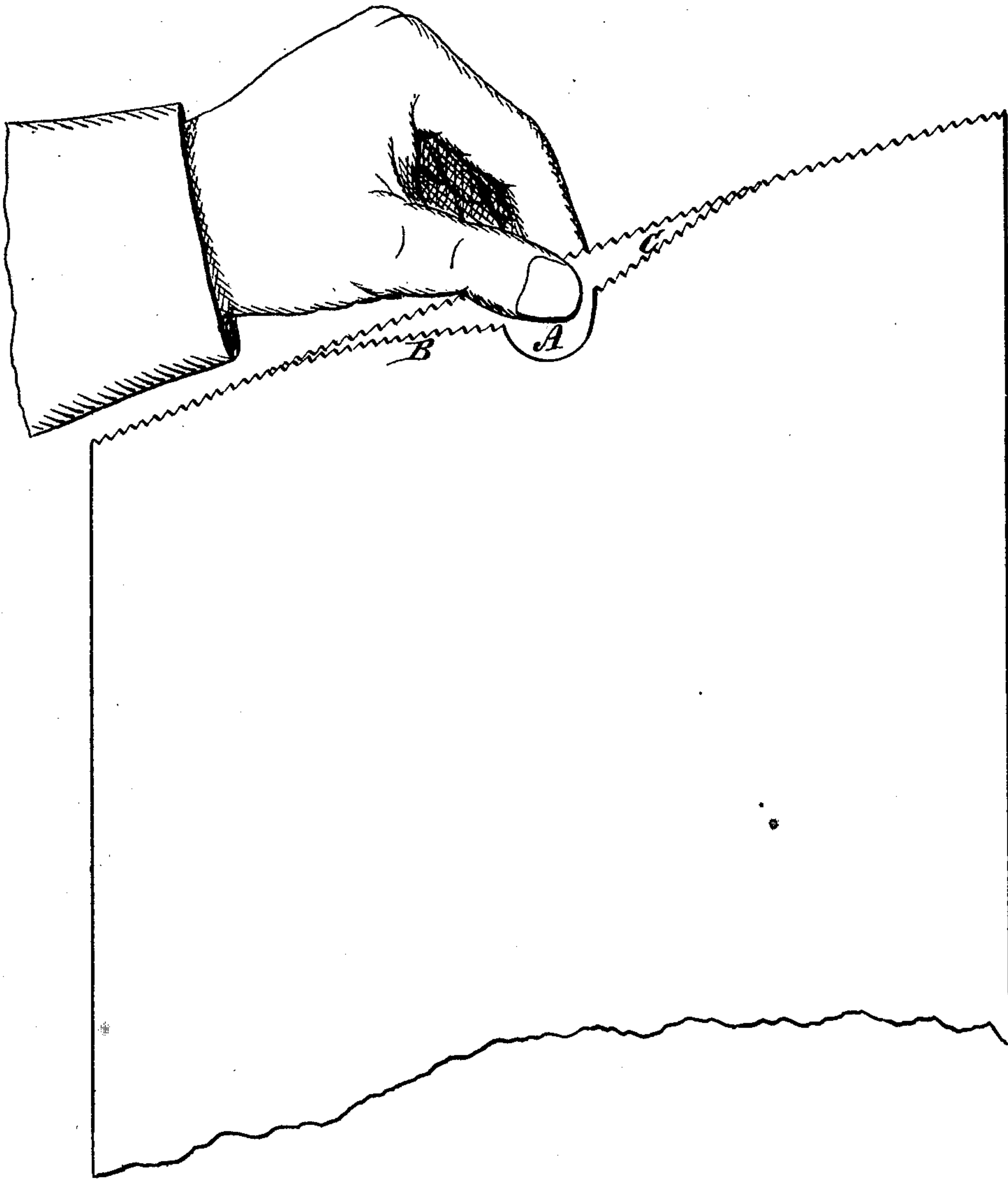
Inventor:
James Arkell.
By his attorney
J. M. C. Entire

J. ARKELL.
PAPER-BAGS.

No. 185,469.

Patented Dec. 19, 1876.

Fig. 3.



Witnesses:
E. Maff
Jacob Helber

Inventor:
James Arkell
By his attorney
L. N. McArthur

UNITED STATES PATENT OFFICE

JAMES ARKELL, OF CANAJOHARIE, NEW YORK.

IMPROVEMENT IN PAPER BAGS.

Specification forming part of Letters Patent No. 185,469, dated December 19, 1876; application filed August 14, 1876.

To all whom it may concern:

Be it known that I, JAMES ARKELL, of Canajoharie, Montgomery county, in the State of New York, have invented new and useful Improvement in Paper Bags; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the manufacture of paper bags one of the following-named modes of manufacture is usually followed, viz., either that in which a properly-shaped blank is cut out, and subsequently so folded over and pasted together at certain points, as to form the bag; that in which the paper is folded over, and pasted along its joined edge to form a long flattened tube from which blanks are then cut; that are subsequently so folded and pasted at one end as to complete the bag; or that in which the strip of paper is folded over and pasted at its edges, and then folded upon itself in the direction of its length to form a series of pockets to be subsequently severed into bags.

My invention relates particularly to paper bags made after the second-named mode of manufacture, *i. e.*, that method in which the stock is first folded and pasted to make a long flattened tube, from which blanks are cut to form bags; and it has for its object to render the bag so made capable of being opened at the mouth more readily when it is desired to fill it.

Previous to my invention paper bags have been made with the paper or stock composing one side (when the bag is flattened) a little longer than that of the other side, so that the edges of the mouth of the bag or flattened tube would not coincide, and hence a greater facility for opening the mouth with the fingers was afforded than when the edges of two flattened sides were exactly even (and would be more likely to stick together) at the mouth of the bag. This mode of construction is, however, best adapted to bags made by first cutting out the blank, and subsequently folding it up.

It has also been customary to make paper bags with the paper at the mouth (or at the edges of the two flattened sides) cut in scallops, with the scallops so arranged relatively

or with the paper so folded over after the cutting out as to have the depressions on one side come opposite to the projections on the other side, as shown, for instance, in United States Letters Patent No. 144,238, of November 4, 1873; and in bags so made greater facility for opening the mouth of the bag is afforded than exists in bags made with the edges of the flattened sides even; but this method of manufacture is not applicable, practically, to that kind of bags made from a continuous flattened tube, and necessitates the cutting out first of the blank sheet and its subsequent folding over and pasting together, at opposite edges, in a certain and precise manner, in order to bring the depressions and projections of the scalloped edge or arrangement described.

It has also been suggested to make paper bags from a strip of paper having semicircular cuts made in line in its center, and distant apart the length of the bag to be formed, as shown, for instance, in United States Letters Patent No. 137,533, of the year 1873; but in this mode of manufacture the bag produced is not made from a flattened tubular blank, and is not such a bag as that to which my invention relates.

The nature of my invention consists in making a cut or cuts through one thickness only of the flattened tubular blank, in such manner that by the subsequent severance crosswise of the said blank thus cut or punctured a notch or notches shall be formed on one side of the mouth of each bag-blank to constitute a means to facilitate the opening of the bag-mouth after they have been closed and their edge clinched in cutting and packing.

To enable those skilled in the art to make and use my improved bag, I will proceed to more fully explain its construction and operation, referring by letters to the accompanying drawings, in which—

Figure 1 is a side view of a square-bottom paper bag or flour sack, such as I have manufactured in large quantities for a long time, and made from a blank cut from a continuous flattened paper tube, but have embodied in it my present invention. Fig. 2 is a similar view of the opposite side of the bag, which is in the both views represented in the flattened condition, in which the manufacturer leaves it

ready for packing and transportation to the merchant or storekeeper. At Fig. 3 is represented, on an enlarged scale by a perspective view, the manner of opening the mouth of the bag, and the facility afforded by my invention.

As is well known in the manufacture of this kind of paper bags, the flattened tubular blanks have to be cut off with a finely-serrated knife, which passes through the double thickness of the continuous flattened tube of paper, thus leaving the two thicknesses of stock not only forced together, but, by reason of the peculiar kind of cut, liable to cling to or remain stuck together.

I make a sort of semicircular or other shaped cut or cuts through one thickness of the flattened tube, and without the interposition of any mandrel or other device, to receive the thrust of the notching-knife, and in such manner, and so located, that when the two thicknesses are brought together and subsequently cut through by the serrated cutter or knife edge, in the usual manner, to form the bag-blanks, there shall be a notch or notches or cut-away portion or portions in one edge of that end of the blank designed for the mouth of the bag, large enough to accommodate the end of the thumb or finger of a person. This semicircular or other shaped cut-away or notch in one edge of the flattened tubular blank, and the bag subsequently made from such blank, are seen in dotted lines at Fig. 1, and at A in Figs. 2 and 3.

It will be seen that in a bag made according to my invention, if a person take hold of the

mouth, as illustrated at Fig. 3, the tendency of the adjacent edges of the flattened mouth will be to separate in the vicinity of the notch A, and that when sprung apart or separated at this point the holder of the bag can readily grasp the protruding portion of the unheld side at B or C, and with his disengaged hand, and pull open the mouth of the bag to fill it. Of course there may be more than one of the notches A cut out, but I have found one sufficient for the purpose described.

Considerable ingenuity has had to be exercised to cut the notch in the manufacture of the bag shown and described without an expenditure of time and labor so great as to overbalance in cost of production the advantage in the product; but the means and mechanism employed for the production of the improved bag may constitute the subject for other Letters Patent, and need not be here described.

What I claim is—

A new and useful improvement in the art of making paper bags from a continuous tubular blank, by first cutting or notching one only of the two adjacent plies or thicknesses of the tubular blank, in the manner described, and subsequently severing the blank to make the bag with a notch or notches at the mouth, substantially as and for the purpose set forth.

Witness my hand and seal this 7th day of August, 1876.

JAMES ARKELL. [L. S.]

In presence of—

J. N. McINTIRE,
JACOB FELBE.