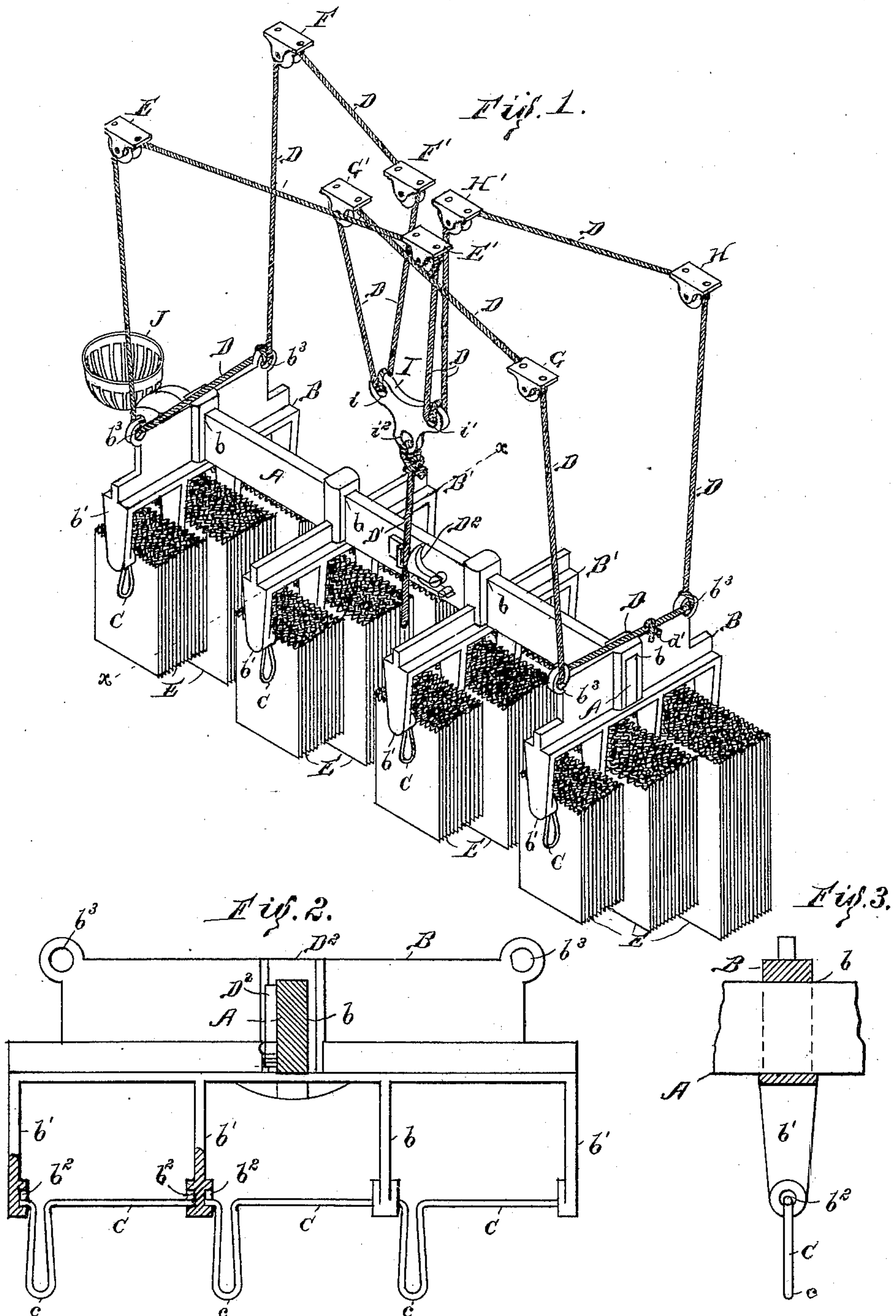


(No Model.)

H. E. GAGE.
HOLDER FOR PAPER BAGS.

No. 401,825.

Patented Apr. 23, 1889.



Witnesses.

Clark & Hyde.
Emma F. Keittredge.

Inventor.

Herbert E. Gage.
By Albert M. Moore,
His Attorney.

UNITED STATES PATENT OFFICE.

HERBERT E. GAGE, OF LOWELL, MASSACHUSETTS.

HOLDER FOR PAPER BAGS.

SPECIFICATION forming part of Letters Patent No. 401,825, dated April 23, 1889.

Application filed June 7, 1888. Serial No. 276,409. (No model.)

To all whom it may concern:

Be it known that I, HERBERT E. GAGE, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Holders for Paper Bags and other Articles, of which the following is a specification.

My invention relates to holders for paper bags and other articles; and it consists in the means hereinafter described and claimed for securing paper bags or similar articles to the holder, in means for raising and lowering said holder and of securing the same at a suitable height, and in the devices and combinations hereinafter described and claimed.

In the accompanying drawings, Figure 1 is an isometric view of my improved holder and the means of raising and lowering the same, packages of paper bags held in said holder, a twine-basket secured to said holder, and a cord-grip secured to said holder and clamping the cord by which said holder is raised or lowered. Fig. 2 is a transverse section of the holder, omitting the lifting and supporting cords, the section being in a vertical plane on the line $x x$ in Fig. 1, the paper bags shown in Fig. 1 being omitted, and two of the hangers being in central section for a short distance from their lower ends to show the means of securing the spring-skewers in place; Fig. 3, a vertical section of one of the arms of the holder, showing a portion of the main bar in side elevation and an end elevation of one of the skewers.

The holder consists of the main bar A, which may be a straight bar of wood or other material, and cross-bars B B', provided with holes b to receive and fit the main bar A, the cross-bars being provided with hangers b' , each of which is provided with one or more recesses, b^2 , to receive the skewers C. The cross-bars B nearest the ends of the main bar A are each provided near each end with a hole or eye, b^3 , to receive the supporting-cord D; but in other respects all the cross-bars are substantially alike. The spring-skewers C are each formed of a piece of spring-wire bent into a loop, c , preferably near the end of the wire, the end portions of the wire being in the same straight line. The object of the loop c is to allow the ends of the skewer C to be brought nearer each other by compressing the upper portion

of the loop c in the hand to allow the ends of the skewer to be inserted in the recesses b^2 , the loop opening when the pressure of the hand is removed and throwing the ends of the skewer outward into said recesses. The longer straight portions of the skewers are passed through openings in paper bags E near the tops of said bags before being inserted in the recesses b^2 and hold the bags together in the holder and allow them to be removed therefrom singly by tearing out the top of the bag by pulling the same downward.

Each package of paper bags contains only one size of bags, and the different sizes may be arranged in the holder according to convenience. Thus it will be well to arrange the smaller sizes nearest the person for whose use the holder is intended; but if the holder is to be suspended over a counter, and used by persons on either side of the counter, it will be more desirable to arrange the larger sizes on the middle row of skewers directly under the main bar, placing the smaller sizes on the outer row of skewers.

In practice the holder is intended to be suspended from the ceiling of a store. A convenient means of suspending the holder is shown in Fig. 1, in which D represents a supporting-cord looped twice through the eyes b^3 of the end bar, B, at the left of the holder, thence carried over pulleys E F, thence over other pulleys, E' F', then looped twice through eyes $i i'$ of a yoke, I, thence over pulleys H' G' and over other pulleys, G H, after which they are looped twice through the eyes b^3 of the end bar, B, at the right of the holder, and the ends of the cord are tied in a knot, d' , between said last-named eyes. It will be understood that the pulleys above named are to be secured to the ceiling of the room in which the holder is used in any usual manner. The yoke I is provided with another eye, i^2 , through which another cord, D', is inserted and tied, by pulling downward on which cord the holder is raised. The cord D' passes through a cord-grip, D², of such construction that the cord may be drawn freely in a vertical direction or allowed to slip vertically upward through said grip; but if the cord be bent against the grip it will be immediately clamped and prevent the descent of the holder. The grip shown is not, however, of my invention. I do not limit myself to the use of this cord-grip,

but may use any suitable cord-grip or rope-clamp, or may tie the lifting-cord D' to the main bar.

It will be noticed that the parts of the cord D which connect the pulleys E E' on the one hand and the pulleys G' G on the other cross each other, while the parts of the said cord which connect the pulleys F F' and H' H do not cross each other, or, in other words, that the front end of each end bar is attached to the end of the yoke I farthest from said end bar, while the rear end of each end bar is attached to the end of the yoke nearest to said end bar and the ascending and descending parts of the cord D are substantially vertical.

It follows that depressing any corner of the holder will tend to raise one end of the yoke I in such a manner as to allow the diagonally-opposite corner of the holder to fall by its own weight; but the end bars being rigidly attached to the main bar, it follows that depressing either corner or end or side of the holder will tend to depress equally the entire holder, so that within certain limits of inequality of weights on opposite sides of the holder every position of the holder is parallel to every other position of the same, and the holder may always be held in a horizontal or inclined position, as desired, and may be so suspended from an inclined ceiling as, within said limits, to be horizontal at all times by properly proportioning the lengths of the different parts of the cord D—that is, by giving a greater length to the parts of the cord which connect one end bar to the yoke than to the parts of said cord which connect the other end bar to said yoke.

The above-described tendency of the holder to be depressed equally by unequal weights on opposite sides of the middle of the same prevails with any inequality of weights which could occur in the case of the holder when used to support paper bags, and would prevail if the holder were used to support heavier articles, provided the weights were placed between the supporting-cords and the middle of the holder, and provided, also, that the lifting-cord D' were secured by a grip supported independently of the holder; but when the grip is supported upon the holder, as may most conveniently be done, the holder itself becomes a lever having a central fulcrum, and too great a disparity of weight upon the opposite arms of the lever will depress the most heavily weighted end and raise the other.

The holder with all its parts, as above described, may be used for holding wrapping-papers of different sizes, or for holding an assortment of printed blanks, train-schedules, or a variety of other articles.

In Fig. 1 a twine holder or basket, J, is shown attached to the main bar. This will be found to be a convenient arrangement, as the twine and the paper bags are thus placed near to each other, and are commonly required to be used by the same person at the

same time. Obviously the cord D may be in four separate pieces, each piece uniting one corner of the holder to the yoke.

The holder without the skewers and hangers or the main bar without the cross-bars may be suspended as above described, and used for the display of small articles, as furnishing goods or dry goods, and raised out of the way, and lowered for use within reach of the attendant.

Where a pole or bar equivalent to the main bar A is used without the cross-bars and hangers, the opposite ends of the bar should be connected to the yoke and hung precisely as two diagonally-opposite corners of the holder above described are hung.

The yoke I is rather for convenience and for appearance than because necessary, for the inner ends or bights of the cord-sections may be united directly to the lifting-cord D' with the same result—that is, with the result that depressing any corner of the holder will have a tendency, within the limits above stated, to lower the diagonally-opposite corners.

In all cases the pulleys should be so placed as to bring the ascending and descending parts of the cord D as nearly vertical as possible.

I claim as my invention—

1. The combination of the holder provided with hangers having oppositely-arranged recesses, and spring-skewers adapted to be compressed, to be placed between said hangers and by their expansion to enter said recesses and to be thereby held in place, as and for the purpose specified.

2. The combination of the holder provided with hangers having oppositely-arranged recesses, and skewers formed of spring-wire, each of said skewers having a loop between its ends and being adapted by the compression of said loop to have its ends drawn toward each other to enter between a pair of hangers and by the expansion of said loop to force its ends into said recesses, as and for the purpose specified.

3. The combination of the holder, the yoke, one or more cords connecting the corners of said holder to said yoke and passing over pulleys between each such corner and said yoke, the diagonally-opposite corners of said holder being connected to the same end of said yoke, and another cord attached to said yoke to draw the same downward to raise said holder, and when secured to maintain said holder in a raised position, whereby depressing one side, end, or corner of said holder will have a tendency to depress to an equal amount the other side, end, or corner of the same, as and for the purpose specified.

In witness whereof I have signed this specification, in the presence of two attesting witnesses, this 29th day of March, A. D. 1888.

HERBERT E. GAGE.

Witnesses:

ALBERT M. MOORE,
KIRKLEY HYDE.