

No. 889,751.

PATENTED JUNE 2, 1908.

C. L. BOND.
BAG HOLDER.

APPLICATION FILED JAN. 23, 1907.

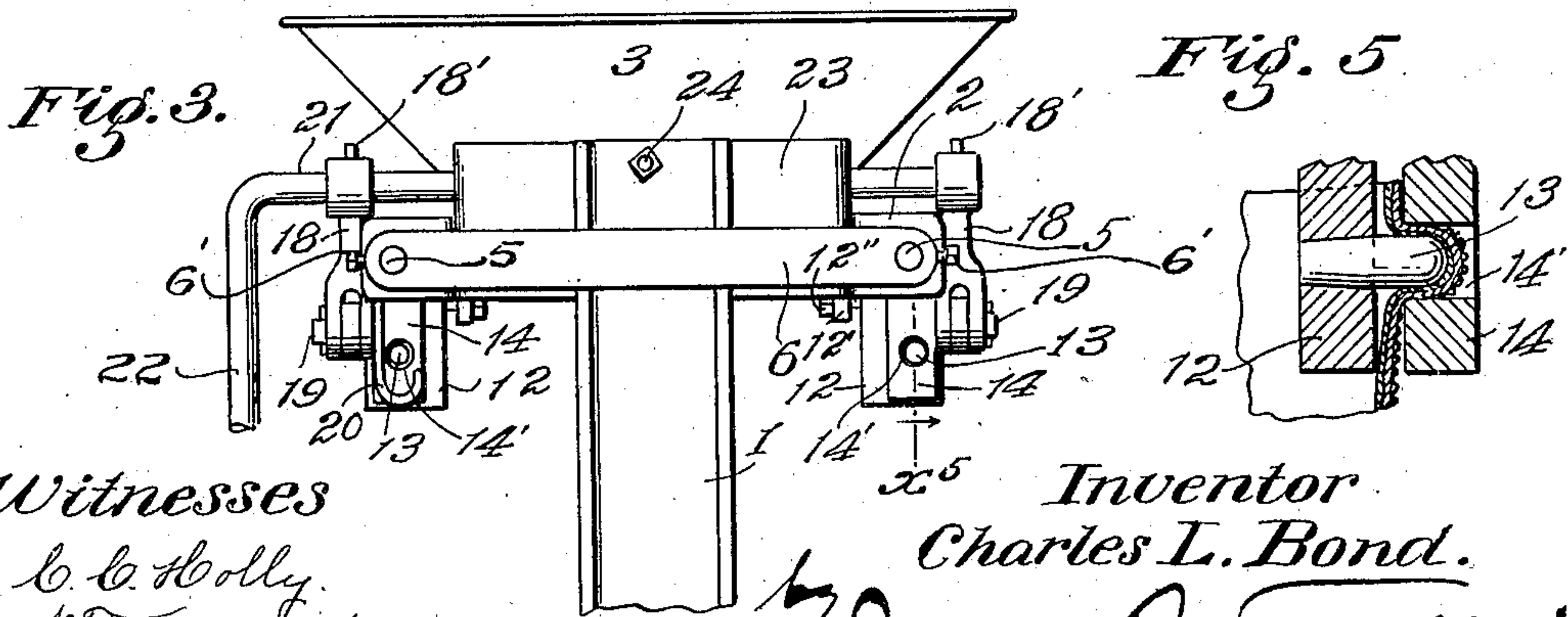
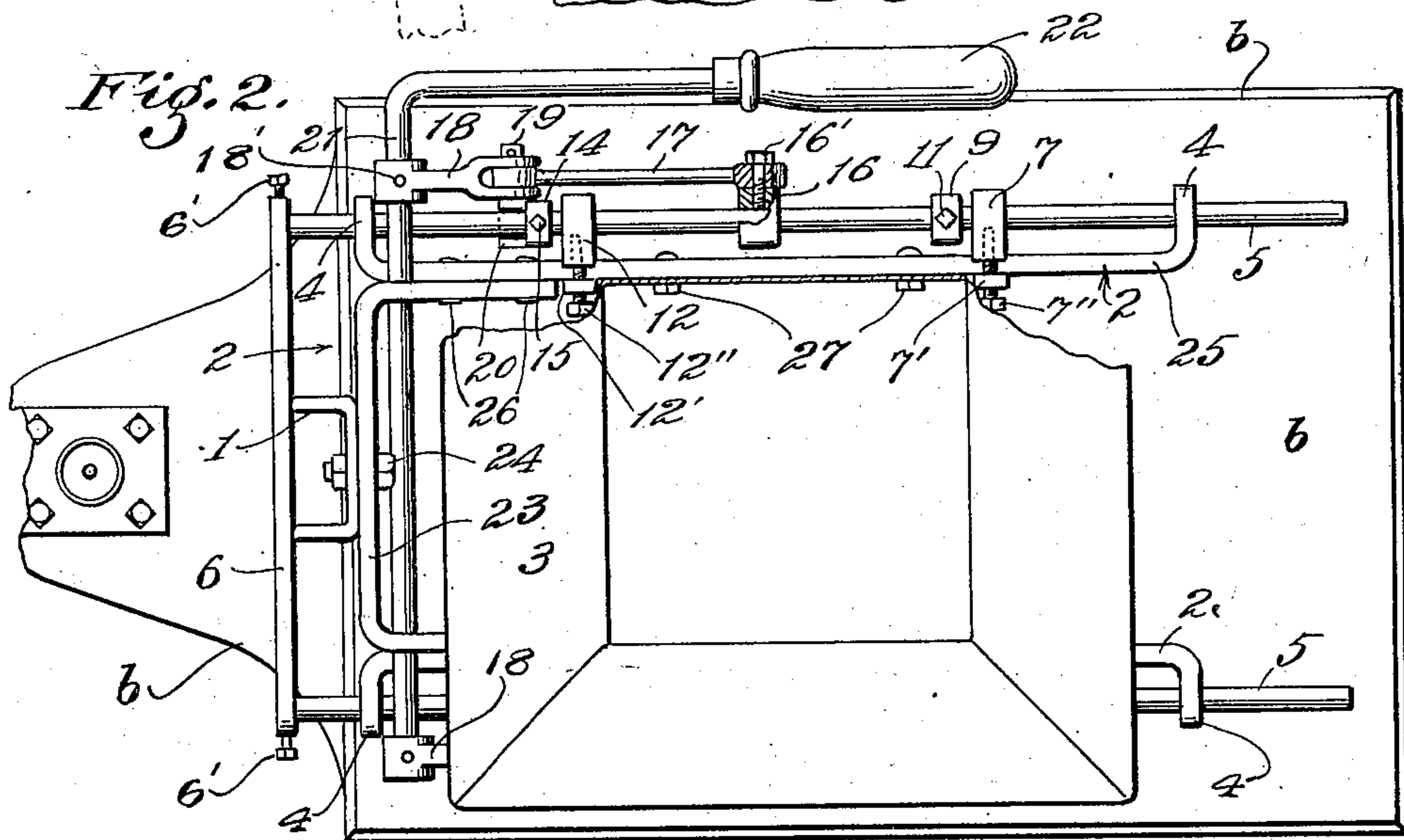
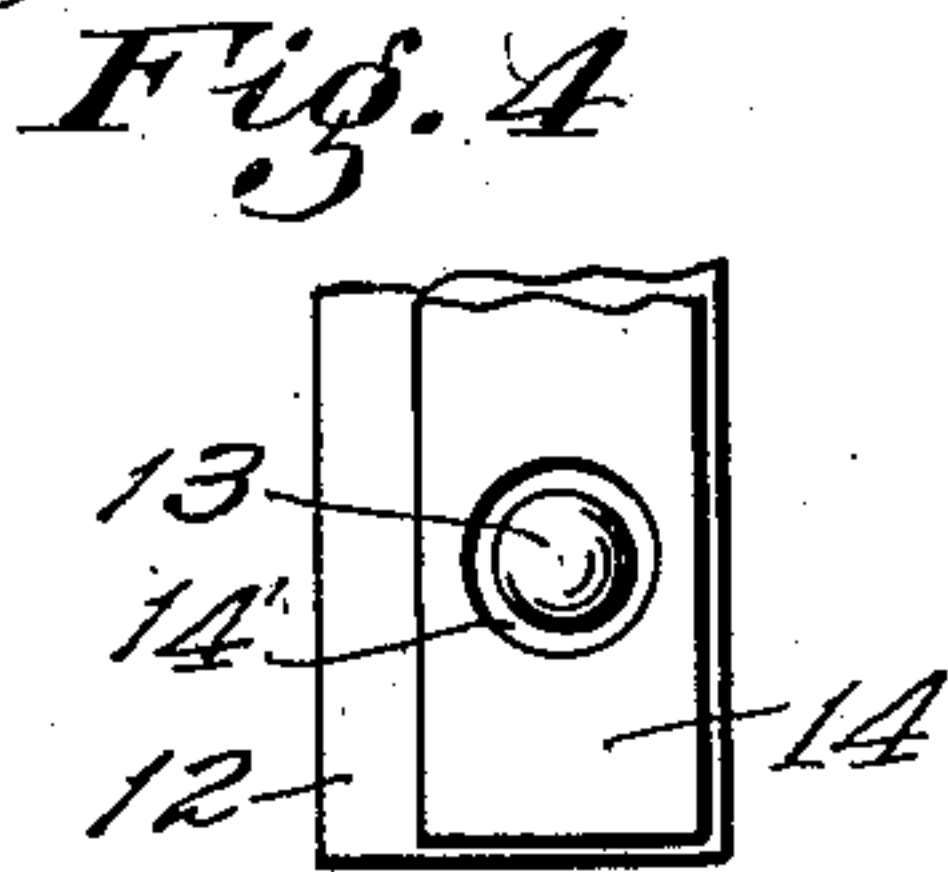
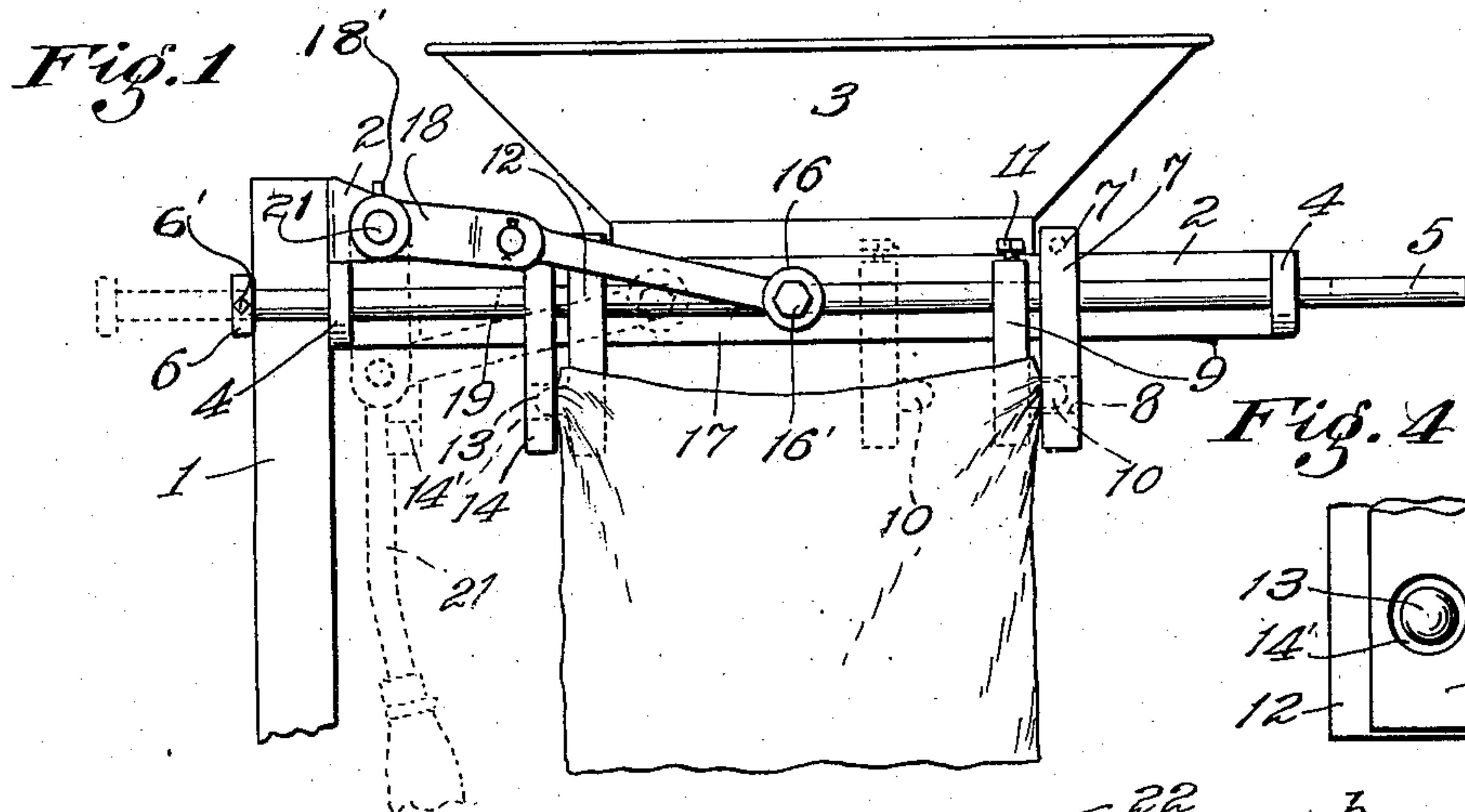


Fig. 5

Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES L. BOND, OF LOS ANGELES, CALIFORNIA.

BAG-HOLDER.

No. 889,751.

Specification of Letters Patent.

Patented June 2, 1908.

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To all whom it may concern:

Be it known that I, CHARLES L. BOND, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Bag-Holder, of which the following is a specification.

It is one of the objects of this invention to provide a device for holding bags in connection with automatic weighing scales, and to provide means whereby the bag may be readily and rapidly adjusted in place without inconvenience in the successive filling and weighing of large packages from material in bulk; to provide a simple, compact device which is readily adapted to be used in connection not only with scales, but in connection with other means, and to produce an inexpensive yet substantial structure.

Another object is to provide for perfect adjustability of the bag-holder to bags of various sizes and thickness, and to avoid liability of tearing or otherwise injuring material of which the bag is made.

Further objects are convenience of assembling and taking apart, and compactness for storage and transportation.

The device is applicable for suspending by their mouths, sugar bags and other bags that are required to support heavy weights as 100 pounds of material, more or less, while being filled and weighed, said bags being frequently of great thickness or of more than one thickness, as of coarse material as jute for an outer cover, and cheese-cloth or the like for inside lining, it being necessary to hold both outer and inner bags without allowing the same to slip or tear when the weight comes on them.

A further object is to hold bags of different sized mouths without changing the adjustment of the holder; also to hold the bags without stretching or straining them; and to support the bag at four places, thus to hold the mouth widely open beneath a hopper as the same might be held by the hands of two attendants though with perfect steadiness.

In the drawings, Figure 1 is a side elevation of a bag-holder embodying the invention. The releasing position of the operating lever and means for holding the bag are shown in dotted lines. Fig. 2 is a plan view, the hopper being shown partly broken to illustrate the operating mechanism which is shown in holding position. Fig. 3 is a rear elevation of the device in releasing position. Fig. 4 is a fragmental elevation of one pair of

the lugged and apertured jaws viewed from the left of Fig. 1, omitting the bag. Fig. 5 is a fragmental section of the same jaws viewed from line x^5 , Fig. 3, holding a two-ply bag.

1 is an upright support mounted on a suitable base b and having fixed thereto and extending away at right angles to said support a frame 2 upon which is secured a hopper 3.

4 designates ears on the frame 2 having openings to accommodate carrier rods 5 which are adapted to slide in the openings of the ears, and are connected by a cross-piece 6 secured to the rearward ends thereof by set-screws 6' to prevent the rods from turning.

7 designates jaw members adjustably fixed to the frame 2 by clips 7' and set-screws 7'' and provided with openings 8.

9 designates depending jaw members having lugs 10 arranged to enter the openings 8 of the members 7 to clamp one side of the bag. The depending jaw members 9 are adjustably seated on the carrier 5 and are secured by set-screws 11.

The interlocking jaw members are arranged in pairs in a common horizontal plane, so as to interlock to clamp a bag when moved relatively in right lines horizontally and longitudinally of said members.

12 designates jaw members each provided with a lug 13, said jaw members being adjustably mounted on the frame 2 and secured by clips 12' and set-screws 12''.

14 designates depending members adjustably mounted on the carrier 5 and secured by set-screws 15 extending through the top thereof and bearing against the carrier. The members 14 are provided with orifices 14' to receive the lugs 13.

16 is a block adjustably secured midway of one of the carrier-rods 5 and having pivotally attached thereto a link or connecting-rod 17 which is connected to a crank-arm 18 by means of pin 19, the inner end of which terminates in a U-shaped hook 20 which extends underneath one of the carrier-rods 5 and engages the same when the link 17 is just above dead center with the crank-arm 18, thus to limit the movement of the link after reaching a position to hold the jaws closed.

The crank-arm 18 is fixed on and is operable by a shaft 21 that is journaled in and extends through the frame 2. One end of said shaft 21 is bent to form a lever and is

provided with a handle 22 which serves to operate the carrier 5, 6, thereby to move its jaw members 9 and 14 toward and from the stationary jaw members 7 and 12. Each carrier-rod is connected with the shaft by a block 16, link 17, and crank-arm 18, and is movable endwise alongside the arms.

The handle 22 is on the same side of shaft 21 with the crank-arms 18, so that when the handle is held up in the position indicated in Figs. 1 and 2, the carrier 5, 6, and its jaws 9 and 14 will be moved forward to cause the lugs 10 and 13 to project into the openings 8 and 14'. At this position of the handle the hook 20 engages the carrier-rod 5 above it, thus stopping the handle in position from which it will not return by gravity on account of the up-bent position of joint 19. The joint at 19 thus acts as a toggle-joint to hold the jaws closed against the pressure exerted thereon by the bag while being filled. Whenever the handle is depressed, the carrier moves rearwardly, thereby opening the bag-holder to allow the bag 23 to be removed or placed as the case may be.

Preferably, the rear lugs 13 are stationary, as shown, and project rearwardly, so that the operator may hook the rear side of the mouth of the bag thereon and secure it by drawing forward on the bag. He may then bring the front side of such mouth forward and hook the same over the forwardly-projecting movable lugs 10. Then by pulling the mouth of the bag sidewise with the left hand, such mouth will be retained firmly by the lugs, thus allowing the operator to use his right hand to bring the handle to horizontal position, thereby moving the members 14 forward to encircle the portions of the bag caught by lugs 13, and at the same time moving the lugs 10 forward to bring into the holes 8 the portions of the bag caught on the lugs 10. The bag will thereby be held until the handle is returned from its horizontal position, whereupon it becomes releasable.

The adjustable members 7, 9, 12 and 14 may be moved to any position relative to each other, thus to adapt the holder to secure bags of various widths of mouth and thickness of material. The stop formed by the hook 20 is designed to prevent the jaws from coming so close together as to cut or injure the bag.

The blocks 16 are adjustably fixed on the carrier-arms or rods 5 by means of set-screws 16' the inner ends of which engage the rods, and the outer portions of which form the wrist-pins for the links 17. The horizontal frame or support 2 extends forwardly from the hopper so as to afford a considerable adjustment of the jaw members 7.

By reason of the set-screws the appliance can be readily adjusted throughout a wide range, and the parts can be easily assembled and disassembled.

The supporting frame indicated in a general way by the character 2 may be composed of three U-shaped parts; viz.,—a bracket 23 fastened to the channel-iron upright support 1 by bolt 24, and two side arms 25 riveted thereto by rivets 26.

The hopper 3 may be detachably secured to the arms 25 by stove bolts 27.

By simply bringing the handle 22 to horizontal position and removing the stove-bolt 24, the frame and carrier can be lowered to the base *b* or removed from the support post 1 for convenience of storage or transportation. Or, if desired to make the device more compact, the set-screws and stove bolts may be loosened and all the parts except those of the frame, be disassembled.

By reference to Figs. 4 and 5 it will be seen that the lugs 13 are of considerably less diameter than the openings 14', and that the bag-engaging end of the lug 13 is rounded to simply tuck the material of the bag into the opening. The lug may be formed of a taper-stud driven into a taper-hole, as 13', so that in case the lug becomes worn it may be driven out and replaced with new.

The base *b* may be the platform of weighing scales so that when the bag is suspended from the holder and free from other support the weight of its contents, as the bag is being filled, will be supported by the scales, and will stretch the bag into smooth form.

What I claim is:—

1. A bag holder comprising pairs of interlocking members arranged in a common horizontal plane, and means for causing relative longitudinal horizontal movement between said members in right lines to interlock and unlock the same.

2. A bag-holder comprising pairs of interlocking depending jaw members arranged in a common horizontal plane, means for holding one member of each pair stationary, and means for simultaneously moving the other members longitudinally, horizontally, in right lines, to interlock and unlock said members.

3. A bag holder consisting of a frame, a carrier comprising two rods slidable in said frame, two jaw members on each of said rods, and jaw members fastened on said frame to interlock with the jaw members of said carrier.

4. A bag-holder comprising a frame, a carrier slidable on said frame, stationary jaw members at the rear of said frame provided with rearwardly-projecting lugs, jaw members on the carrier provided with openings to receive said lugs, stationary jaw members at the front of the frame provided with openings, and jaw members on the carrier provided with forwardly-projecting lugs to enter the openings of said stationary jaw members.

5. A bag-holder comprising a frame, sta-

tionary jaw members on said frame, a carrier, longitudinally slidable jaw members on said carrier to interlock with the jaw members of the frame, a shaft on the frame, a handle on the shaft, and connections connecting the shaft with the carrier to operate the same.

6. A bag holder comprising a suitable support, a plurality of carrier rods slidably mounted in said support, apertured and lugged jaws on said carrier rods and slidable on said carrier rods, lugged and apertured jaws on said support, and means for operating said carrier rods.

7. A bag holder comprising a frame, four stationary jaw members thereon, a carrier, four jaw members thereon and movable therewith, said jaw members being arranged in pairs, each pair comprising a stationary and a movable member, one of which is provided with an opening and the other with a lug to enter the same, and means to operate the carrier.

8. A bag-holder comprising a frame, two front and two rear jaw members fixed thereto, a carrier, two front and two rear jaw members thereon and movable therewith, the front jaw members of the frame and the rear jaw members of the carrier being provided with openings, and the rear jaw members of the frame and the front jaw members of the carrier being provided with lugs to enter said openings.

9. A bag holder having a frame, a carrier, slidable longitudinally of the frame, jaw members on said frame and carrier respectively, a shaft journaled in the frame, a handle on one side of said shaft, an arm on the same side of the shaft, and a link connecting the arm with the carrier.

10. A bag holder having a frame, a carrier, slidable longitudinally of the frame, jaw members on said frame and carrier respectively, a shaft journaled in the frame, a handle on said shaft, an arm on the shaft, and a link connecting the arm with the carrier.

11. A bag holder having a frame, a carrier, slidable longitudinally of the frame, jaw members on said frame and carrier respectively, a shaft journaled in the frame, a han-

dle on one side of said shaft, an arm on the same side of the shaft, a link connecting the arm with the carrier, and a stop to stop the arm when the joint between the same and the link is above the dead center.

12. A hopper, a frame carrying said hopper and comprising two arms projecting forwardly and rearwardly of the hopper, jaw members on each of said arms forwardly and rearwardly of the hopper, movable carrier rods parallel with said arms, means to simultaneously move said rods endwise, and jaw members mounted on said rods to cooperate with the jaw members of the frame by means of lugs and openings substantially set forth for holding the bag beneath the hopper.

13. A hopper, a frame carrying said hopper and comprising two arms projecting forwardly and rearwardly of the hopper, jaw members on each of said arms forwardly and rearwardly of the hopper, movable carrier rods parallel with said arms, means to simultaneously move said rods endwise, and jaw members adjustably mounted on said rods to cooperate with the jaw members of the frame by means of lugs and openings substantially set forth for holding the bag beneath the hopper.

14. A hopper, a frame carrying said hopper and comprising two arms projecting forwardly and rearwardly of the hopper, jaw members adjustably mounted on said arms forwardly and rearwardly of the hopper, movable carrier rods parallel with said arms, means to simultaneously move said rods endwise, and jaw members adjustably mounted on said rods to cooperate with the jaw members of the frame by means of lugs and openings substantially set forth for holding the bag beneath the hopper.

In testimony whereof, I have hereunto set my hand at Los Angeles California this 16th day of January 1907.

CHARLES L. BOND.

In presence of—

JAMES R. TOWNSEND,
M. BEULAH TOWNSEND.