

No. 829,738.

PATENTED AUG. 28, 1906.

W. H. ROBINSON.  
APPARATUS FOR STUFFING DOWN INTO QUILTS.

APPLICATION FILED FEB. 11, 1902.

2 SHEETS—SHEET 1.

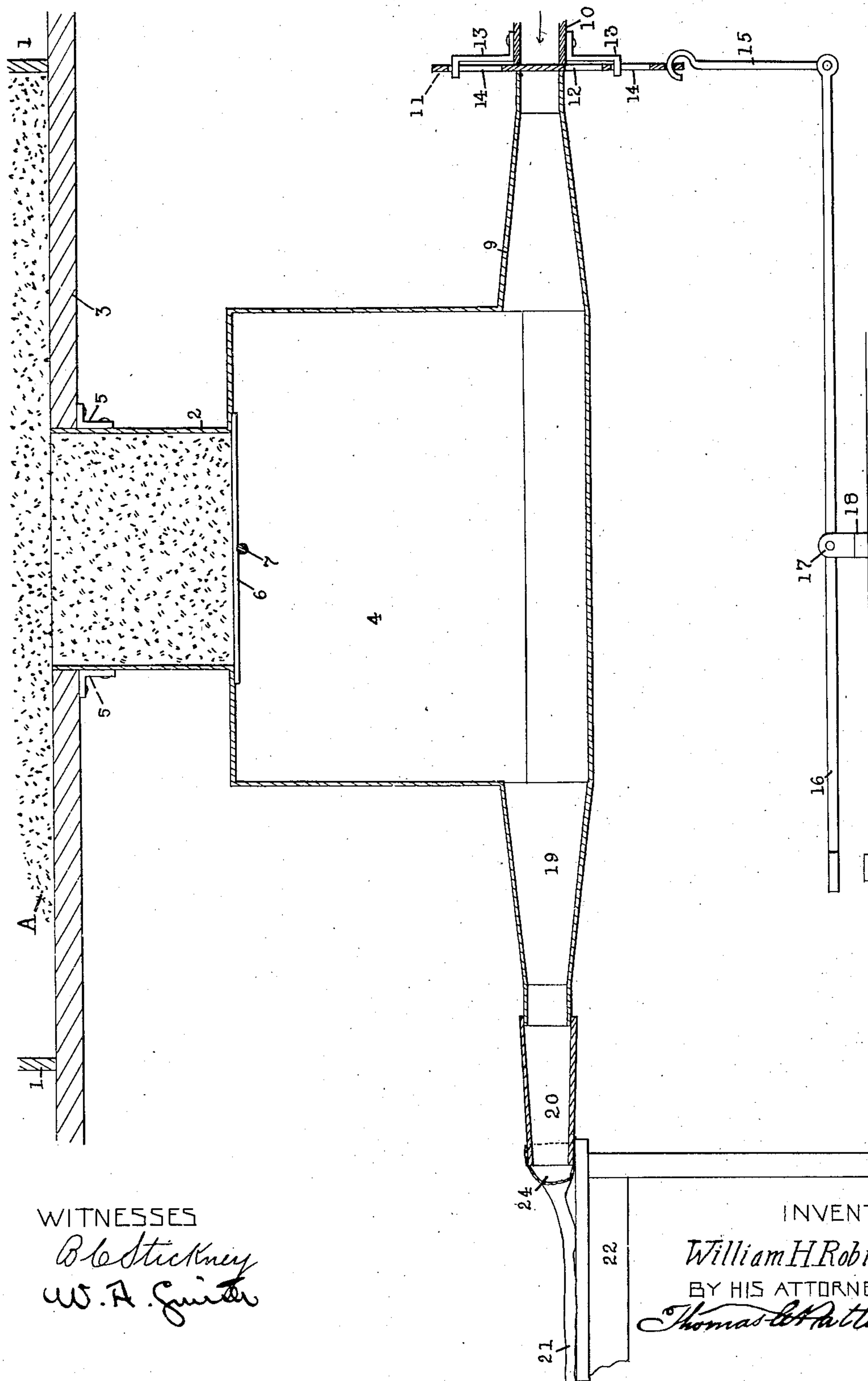


FIG. 1.

WITNESSES

*B. C. Stickney*  
*W. A. Guiter*

INVENTOR

*William H. Robinson*

BY HIS ATTORNEY

*Thomas L. Patterson*

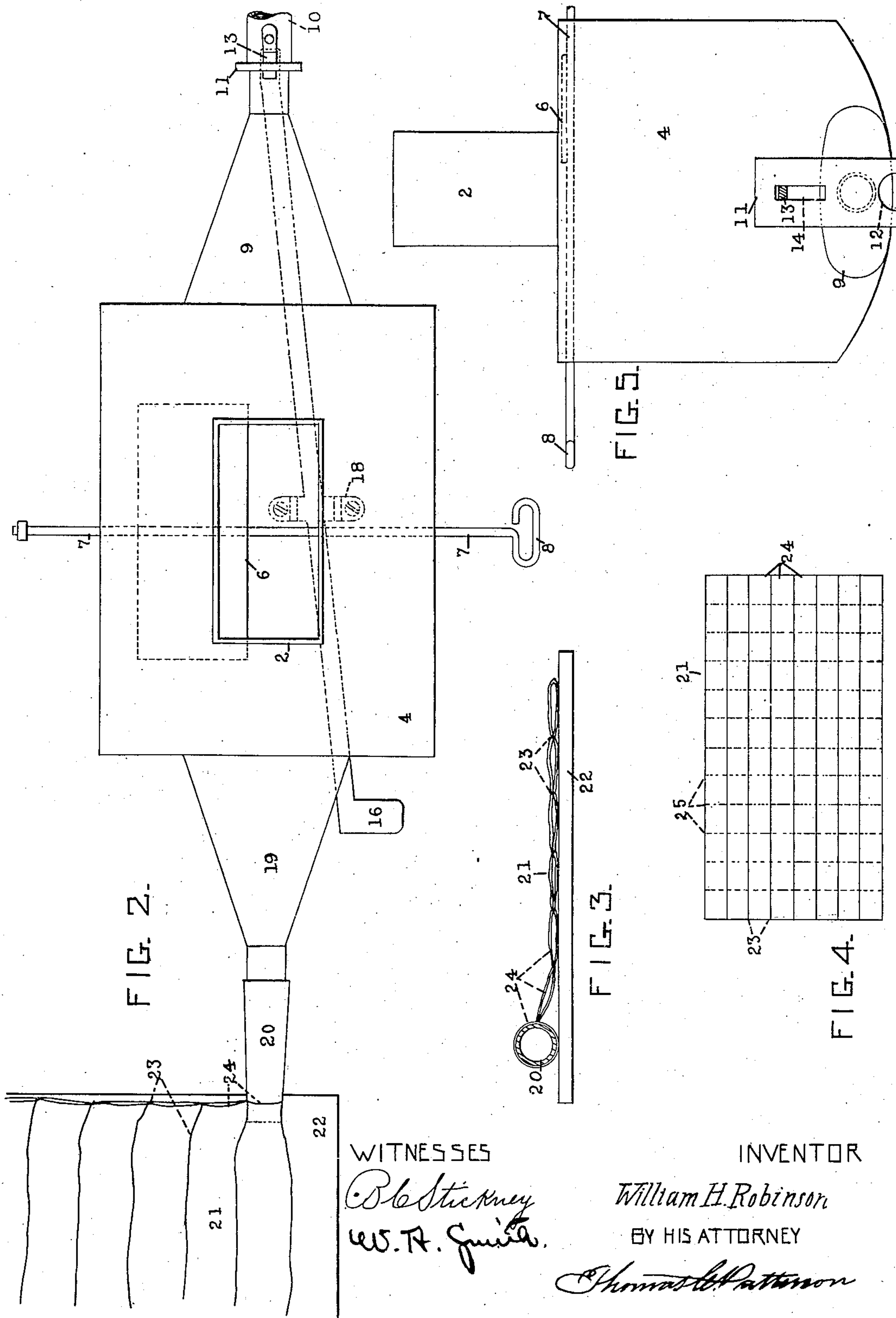
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WITNESSES

*B. Stickney*  
*W. F. Smith*

INVENTOR

*William H. Robinson*

BY HIS ATTORNEY

*Thomas H. Patterson*



# UNITED STATES PATENT OFFICE.

WILLIAM H. ROBINSON, OF STEINWAY, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HIMSELF, AND W. M. HANES, OF WINSTON SALEM, NORTH CAROLINA.

## APPARATUS FOR STUFFING DOWN INTO QUILTS.

No. 829,738.

Specification of Letters Patent.

Patented Aug. 28, 1906

Application filed February 11, 1902. Serial No. 93,557.

*To all whom it may concern:*

Be it known that I, WILLIAM H. ROBINSON, a subject of the King of Great Britain, and a resident of Steinway, borough of Queens, city of New York, and State of New York, have invented certain new and useful Apparatus for Stuffing Down into Quilts, of which the following is a specification.

This application relates to an improved apparatus for stuffing down into quilts.

The object of the invention is to provide a simple and inexpensive apparatus whereby an operator without unusual or special training may rapidly stuff down into quilts and the like. To this end I provide a large bin in which the down is confined in bulk, and from the bin I conduct the down into a receiver from which it is blown through a nozzle into the quilt or the like, means being provided for shutting off the air-current during the movement of the down from the bin into the receiver and for closing the communication between the bin and the receiver while the air-current is turned on.

In the accompanying drawings, Figure 1 is a central sectional elevation taken longitudinally of the apparatus. Fig. 2 is a plan of the apparatus. Fig. 3 is an edge view of an unstuffed quilt, showing the mouths of the pockets into which the quilt-bag has been divided. Fig. 4 is a diagram showing one style of quilting. Fig. 5 is an end elevation of the apparatus.

In the several views similar parts are designated by similar characters of reference.

The down to be used in stuffing a quilt is shown at A, lying upon the floor of a bin 1, the latter being preferably built or located upon the flooring of the loft over the work-room. The bin communicates by means of a vertically-arranged chute 2, which passes downwardly through a hole cut in the flooring 3, with a galvanized iron box-like receiver 4 of oblong formation, its bottom curving or swelling downwardly. The length of the receiver may be four feet, its height three feet, and its transverse measurement three feet, and it may be suspended from the end of the chute, the latter being secured to the overhead flooring by brackets 5. The lower or discharge end of the chute is normally closed by means of a horizontally-arranged shutter 6, fixed upon a long rod 7,

which traverses the upper part of the receiver and slides in perforations formed in the sides thereof. The shutter fits snugly against the under side of the top of the receiver and is large enough to completely close the chute, so as to prevent the passage therethrough of an air-current during the stuffing operation. The shutter may be slid from beneath the chute by means of a handle 8, provided upon a projecting portion of the rod 7.

From the lower right-hand or rear portion of the receiver projects horizontally an intake 9 for the air-current, said intake having a funnel-like formation and its larger end being attached to the receiver. In juxtaposition to the mouth of this intake and in line therewith is suitably supported the delivery end of a pipe 10, which is connected to an apparatus for supplying an air blast or current, which apparatus may be of any usual construction and need not be described. Between the adjoining ends of the air-supply pipe 10 and the intake 9 is arranged a normally closed vertical shutter or valve 11, which may be formed of sheet metal and provided with a circular orifice 12, of a diameter substantially equal to that of the air-supply pipe. This shutter fits snugly between the pipe 10 and intake 9 and may be guided in its vertical opening and closing movements by means of fingers 13, the latter being placed above and below the pipe 10 and secured thereto and entering vertical slots 14 cut in the shutter. To the lower end of the shutter is hooked the upper end of a vertical link 15, whose lower end is pivoted to the rear end of a horizontal treadle 16, which extends to the front or left-hand end of the apparatus and is pivoted between its ends at 17 to a floor-bracket 18. A depression of the forward end of the treadle causes an elevation of the rear end thereof, and an upward movement is thereby communicated through the link 15 to the shutter or slide 11, so that the orifice 12 is brought into register with both the delivery end of the pipe 10 and the receiving end of the intake 9, whereby the blast of air from the pipe 10 is permitted to discharge into the receiver. It will be understood that the shutters 6 and 11 should not be opened simultaneously, as the incoming current of air would then escape upwardly



into the bin 1. Arranged oppositely to and in line with the intake 9 at the other end of the receiver is a discharge funnel or spout 19, which is similar in construction to the intake. Over the front end of the spout is slipped a tubular nozzle 20, the outer end of which may be inserted into the quilt, which is designated as 21 and rests upon any convenient table 22. Preferably the large flat bag which is to form either the lining or casing of the quilt is divided by longitudinal parallel seams 23 into a series of deep pockets 24, each closed at one end and open at the other and the open end being large enough to receive the tip of the nozzle 20.

In operation the handle 8 is pushed inwardly to open the shutter 6, and sufficient down for a quilt is permitted to descend into the receiver, whereupon the handle is pulled out and the shutter cuts off the supply. Then the treadle 16 is depressed, and through the link 15 the air shutter or valve 11 is raised until the orifice 12 therein opens a communication between the pipes 10 and 11, thus admitting a supply of air under pressure into the receiver. The incoming air rushes across the receiver and out through the spout 19, whence it is conducted by the nozzle 20 into one of the pockets 24, which has been previously slipped over the end of the nozzle, as illustrated at Fig. 1. In its passage through the receiver the air takes up a quantity of the down, which is carried into the pocket of the quilt and there deposited, the air itself escaping through the meshes of the cloth composing the bag. In a very few moments enough down is thus blown into the pocket to fill it, whereupon the treadle 16 is released, thus cutting off from the receiver the supply of air, and hence stopping the movement of the down into the pocket. The nozzle is then changed to the next pocket, the treadle again depressed, and so on, until all the pockets are filled. Should the spout become choked, the nozzle may be slipped off and then the down which has become packed in the spout may be pushed back into the receiver.

The entire series of pockets is stuffed within a very few minutes, and the expense of making the quilt is thus greatly reduced. Moreover, owing to the steady pressure of the air-current, the down packs with perfect evenness, thus not only economizing the down, but also improving the quality of the quilt. It will be observed that the down from the moment it drops or is swept into the chute is under perfect control and is not liable to become scattered and wasted, as is generally the case where quilts are stuffed by hand. After the stuffing is completed the open ends of the pockets may be sewed up, and then the quilt may be cross-seamed, as at 25, or tufted, or both. If desired, the nozzle 20 may be lengthened sufficiently to reach into the central portion of the bag, so as to more readily fill a square or other shaped pocket formed in the center of the quilt.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. An apparatus for stuffing down into quilts, comprising a bin, a down-receiver, an intermediate chute, a shutter effective to close said chute so as to prevent the passage of an air-current therethrough, said receiver connected to a blower independently of said chute, and a nozzle connected to said receiver; a valve or shutter being provided independent of said chute-shutter, for controlling the inlet of air-blast into said receiver.

2. The combination of a bin, a down-receiver, a nozzle for the down-receiver, said receiver connected to a blower, and also having a connection independent of said blower, to said bin, and means for preventing the blast from entering the bin, and for shutting the blast completely off when down is passing from the bin into the receiver.

Signed at New York, in the State of New York, this 17th day of December, A. D. 1900.

WILLIAM H. ROBINSON.

Witnesses:

JOHN A. E. GALVIN,  
THOMAS C. PATTERSON.