

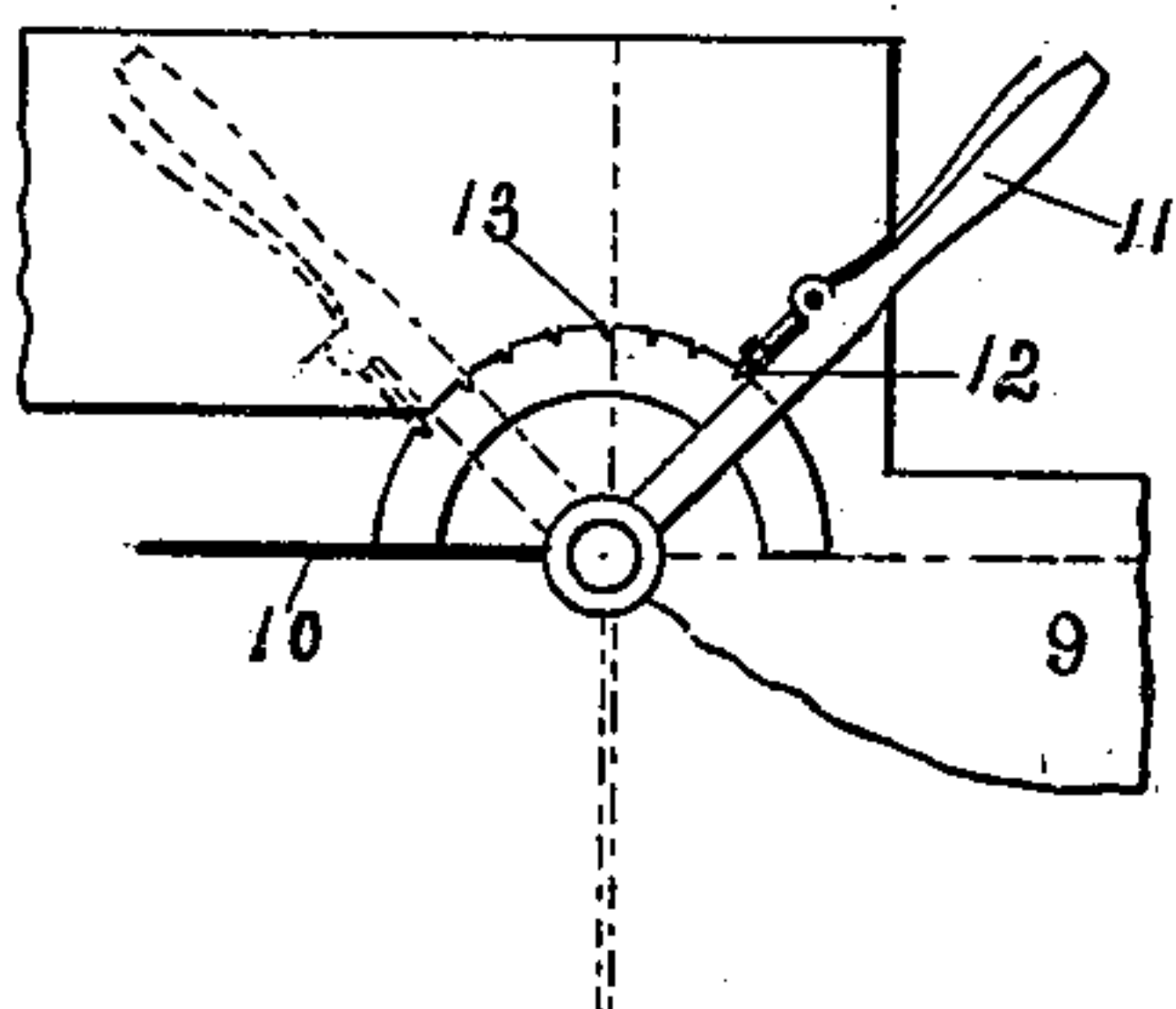
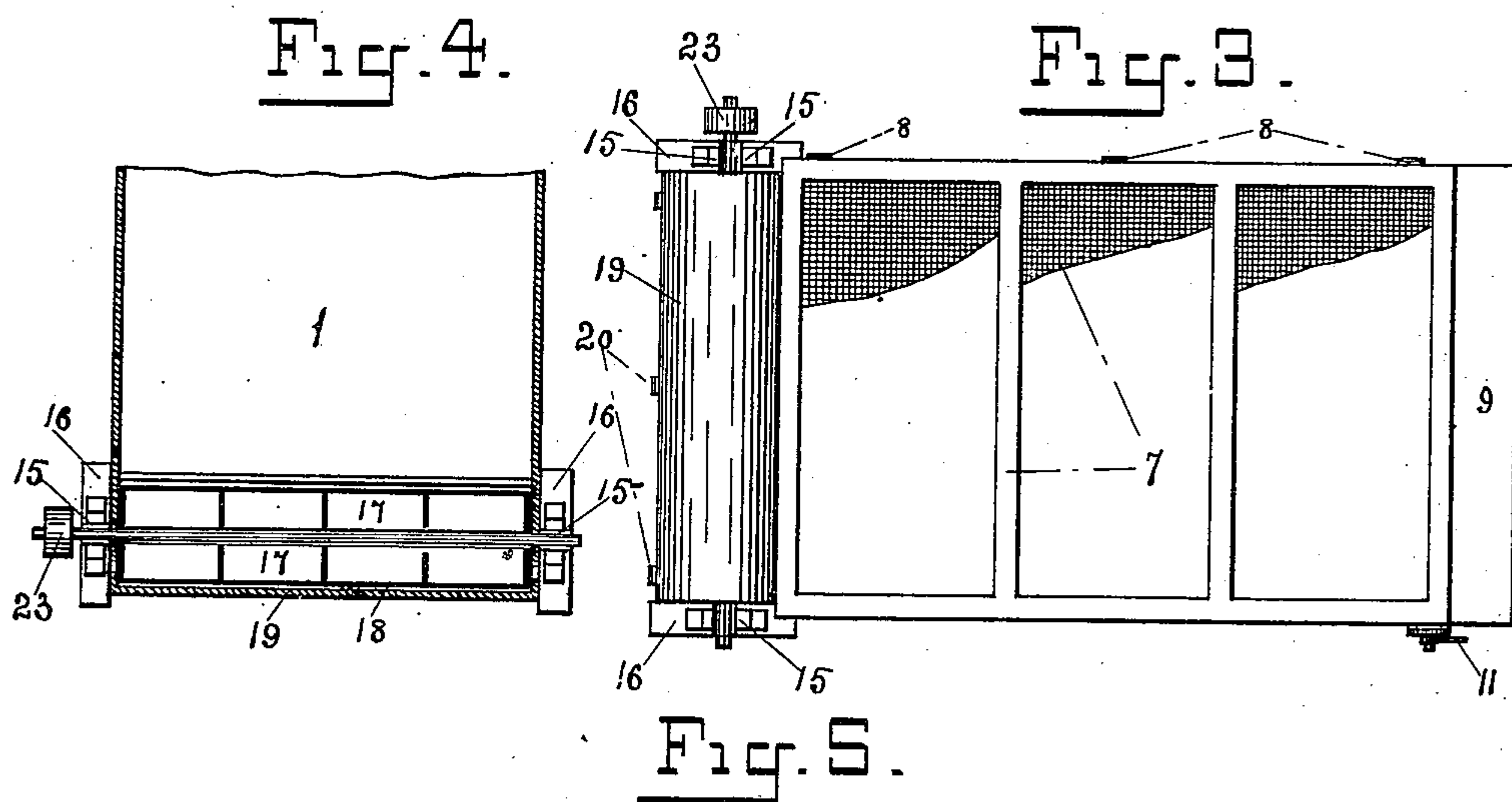
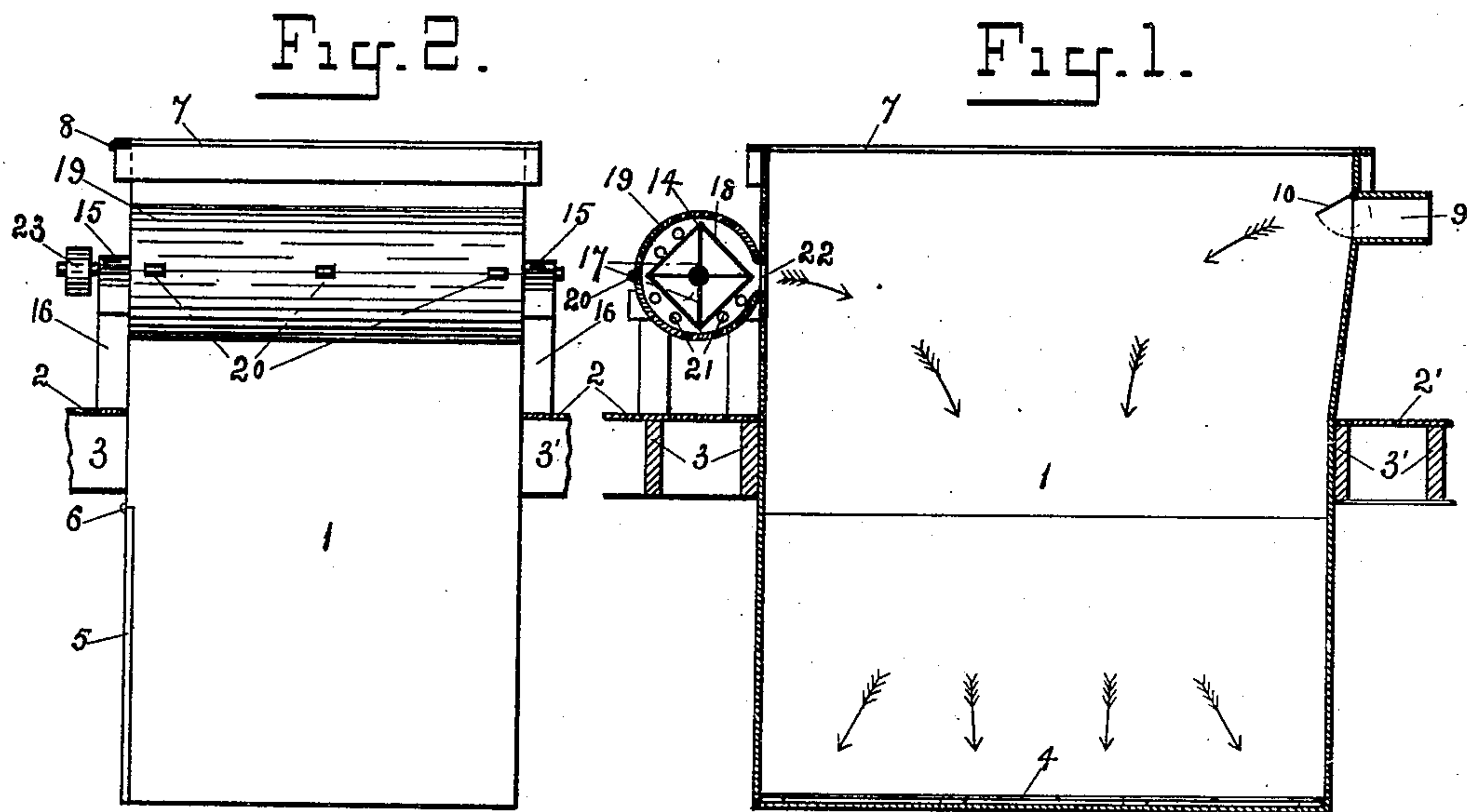
No. 677,780.

Patented July 2, 1901.

J. C. KYLE.
COTTON MATTRESS FORMING DEVICE.

(Application filed May 14, 1900.)

(No Model.)



Witnesses

T. Diamond Russell

Frank Douglas

Inventor

J. C. Kyle

By his Attorney D. Byrne

UNITED STATES PATENT OFFICE.

JESSEE CLEAVLAND KYLE, OF BIRMINGHAM, ALABAMA, ASSIGNOR OF ONE-HALF TO WALTER B. ARCHIBALD, OF SAME PLACE.

COTTON-MATTRESS-FORMING DEVICE.

SPECIFICATION forming part of Letters Patent No. 677,780, dated July 2, 1901.

Application filed May 14, 1900. Serial No. 16,615. (No model.)

To all whom it may concern:

Be it known that I, JESSEE CLEAVLAND KYLE, a citizen of the United States, residing at Birmingham, in the county of Jefferson, State of Alabama, have invented certain new and useful Improvements in Cotton-Mattress-Forming Devices, of which the following is a specification.

My invention relates to improvements in cotton-mattress-forming devices in which air-blasts meeting in opposite directions distribute the cotton as desired in the lint-box to form the mattress; and the said invention consists in the construction and combination of parts hereinafter more particularly set forth and claimed. I attain these objects by the device illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section through the center of the entire device. Fig. 2 is a vertical end view of the device. Fig. 3 is a top view of the same. Fig. 4 is a horizontal sectional view through the center of the fan. Fig. 5 is an enlarged detail view of the deflector-operating lever.

Similar numerals refer to similar parts throughout the several views.

The lint-box 1 is made of suitable or desired material. It is formed rectangular, as shown, and of the proper inside dimensions for the desired mattress. The box is preferably set to extend above and below the floor 2 2', as shown, the box being rigidly secured to the floor-joists 3 3' thereof. The mattress is formed on a suitable frame 4, resting on the bottom of the lint-box, the side 5 of the lint-box being hung on hinges 6 to permit the removal of the frame and mattress. The top of the lint-box has a frame and wire cover 7, the cover being hung on hinges 8 to permit the cover to be opened when desired. A lint-flue 9 is provided in one end of the lint-box. The flue forms a passage, through which the ginned cotton enters the lint-box. The gin is not shown or described, as any of the usual forms of cotton-gins can be used. The deflector 10 is journaled in the lint-box at the mouth of the lint-flue. The blade of the deflector when turned upward can be set at any desired angle to deflect the cotton as desired in the lint-box. The hand-lever 11 is secured

on the outer end of the deflector-shaft, the lever having the usual form of catch 12, engaging in the rack 13 to hold the deflector at any desired position.

The fan 14 is journaled in the bearings 15 15', the journals secured on a suitable frame 16, attached to the floor and the lint-box. The fan is of any desired simple construction having a series of blades 17, having suitable stay-braces 18 at intervals to prevent the springing thereof. The fan-casing 19 is formed in two equal halves. The bottom half of the casing is rigidly secured to the frame, a series of hinges 20 connecting both parts together to permit the upper part to open. A series of holes 21 are formed in the ends of the fan-casings to admit air to enter therein. The aperture 22, formed between the fan and the lint-box, permits the air to pass from the fan to the lint-box. The pulley 23, mounted on the end of the fan-shaft, is adapted to drive the same by a belt from any convenient power. The fan rotates from left to right and drives a current of air obliquely inward and downward, as indicated by arrows in Fig. 1. The deflector aforesaid gives a corresponding direction to the blast from the gin, and those two blasts converge in the middle of the box, causing the cotton to eddy about within the box and distributing it over the bottom thereof. By adjusting the deflector more or less the point of convection of the blasts may be shifted slightly forward or backward from the center, increasing or decreasing the angle at which the air-blast strikes the blast from the gin, and thereby so varying the distribution as to regulate the thickness or swell of the mattress in different parts thereof, as desired.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device for forming cotton mattresses, a lint-box in combination with a fan and cotton-flue arranged to discharge air and cotton into the said box approximately on the same horizontal plane and at opposite sides of the box and an inclined deflector transversely arranged above the cotton-flue in position to act on the entire current of cotton and direct

it as a whole obliquely inward and downward to meet a similarly-directed converging current of air from the said fan substantially as set forth.

- 5 2. In a device for forming cotton mattresses, a lint-box in combination with a fan and cotton-flue arranged to discharge air and cotton into the said box approximately on the same horizontal plane and at opposite sides of the
10 box and an adjustably-inclined deflector transversely arranged above the cotton-flue in position to act on the entire current of cot-

ton and direct it as a whole obliquely inward and downward to meet a similarly-directed converging current of air from the said fan 15 substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JESSEE CLEAVLAND KYLE.

Witnesses:

S. E. THOMPSON,
GEO. BILBE.