

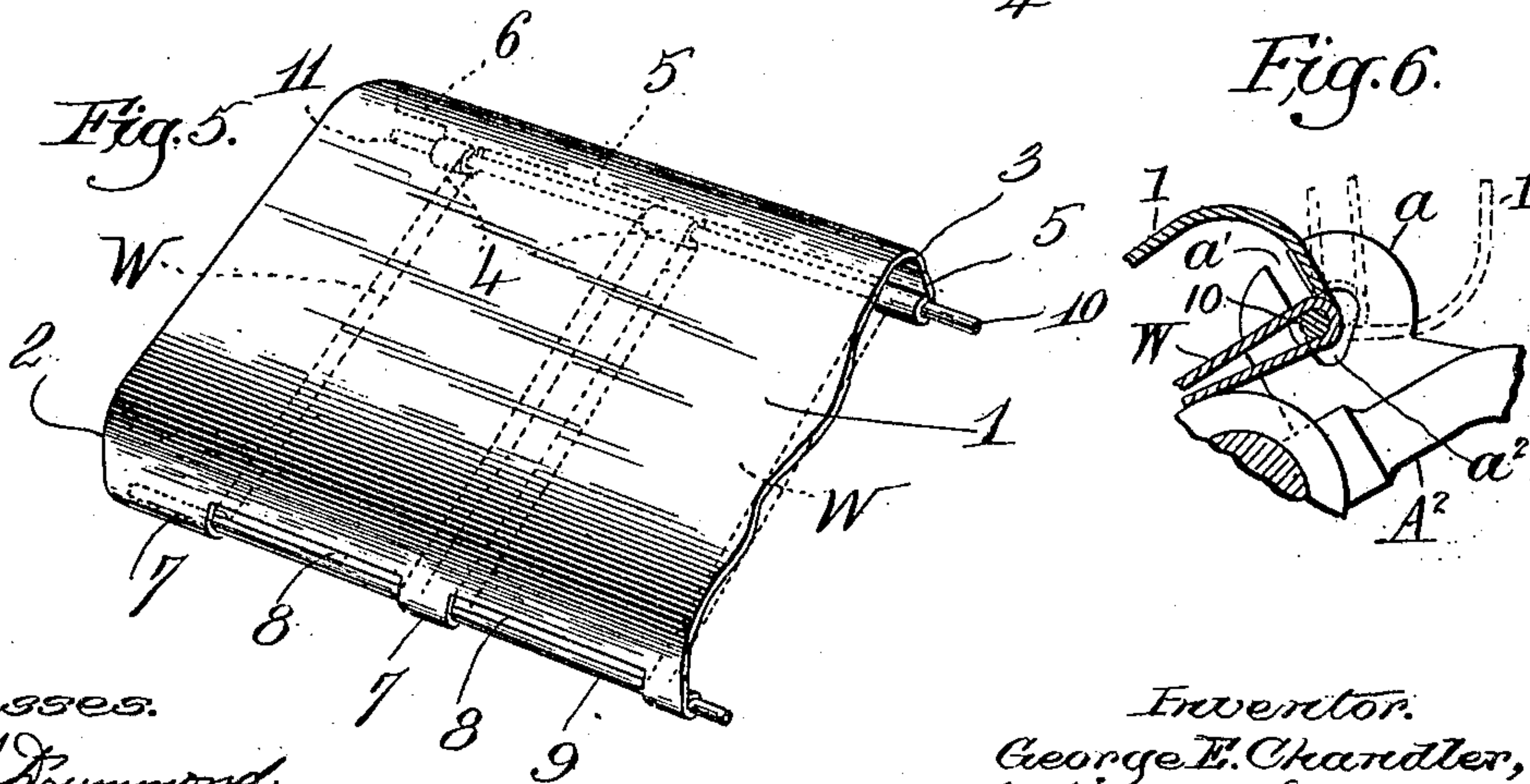
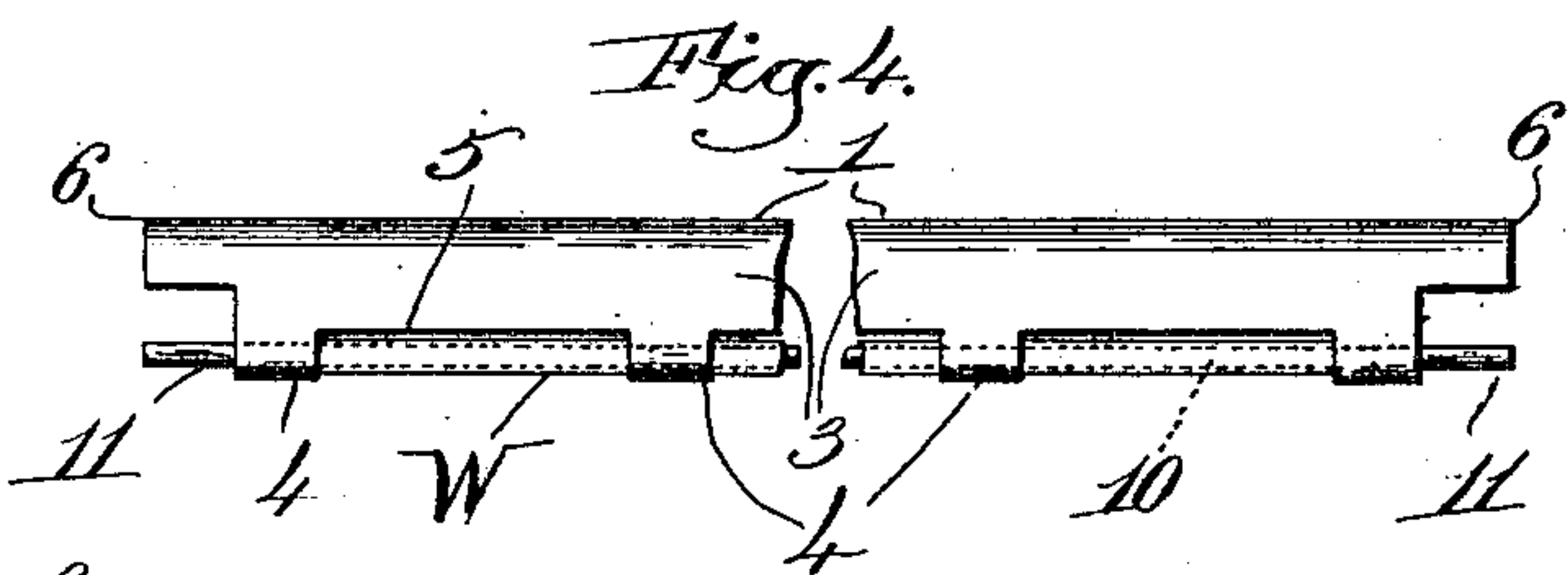
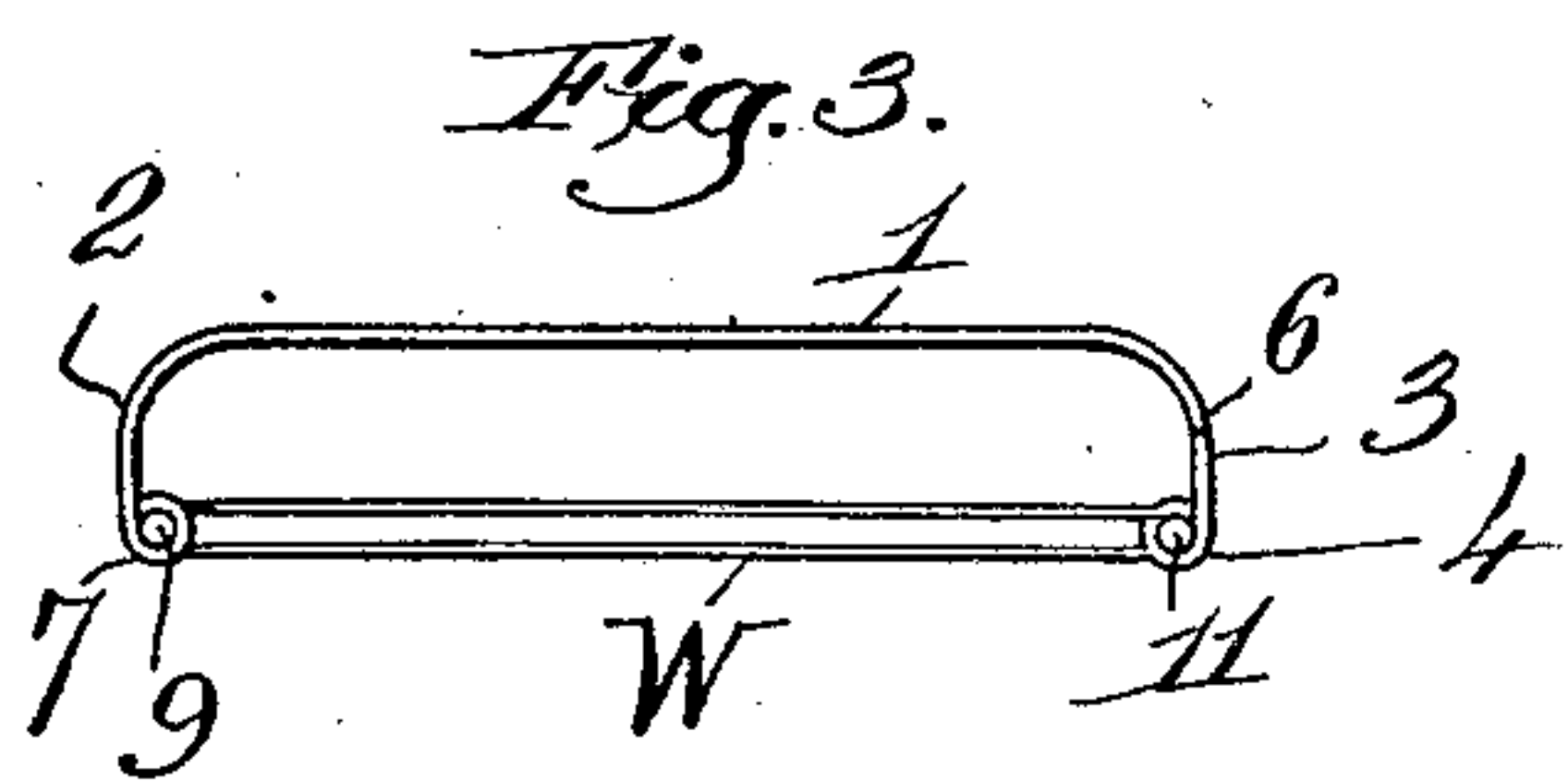
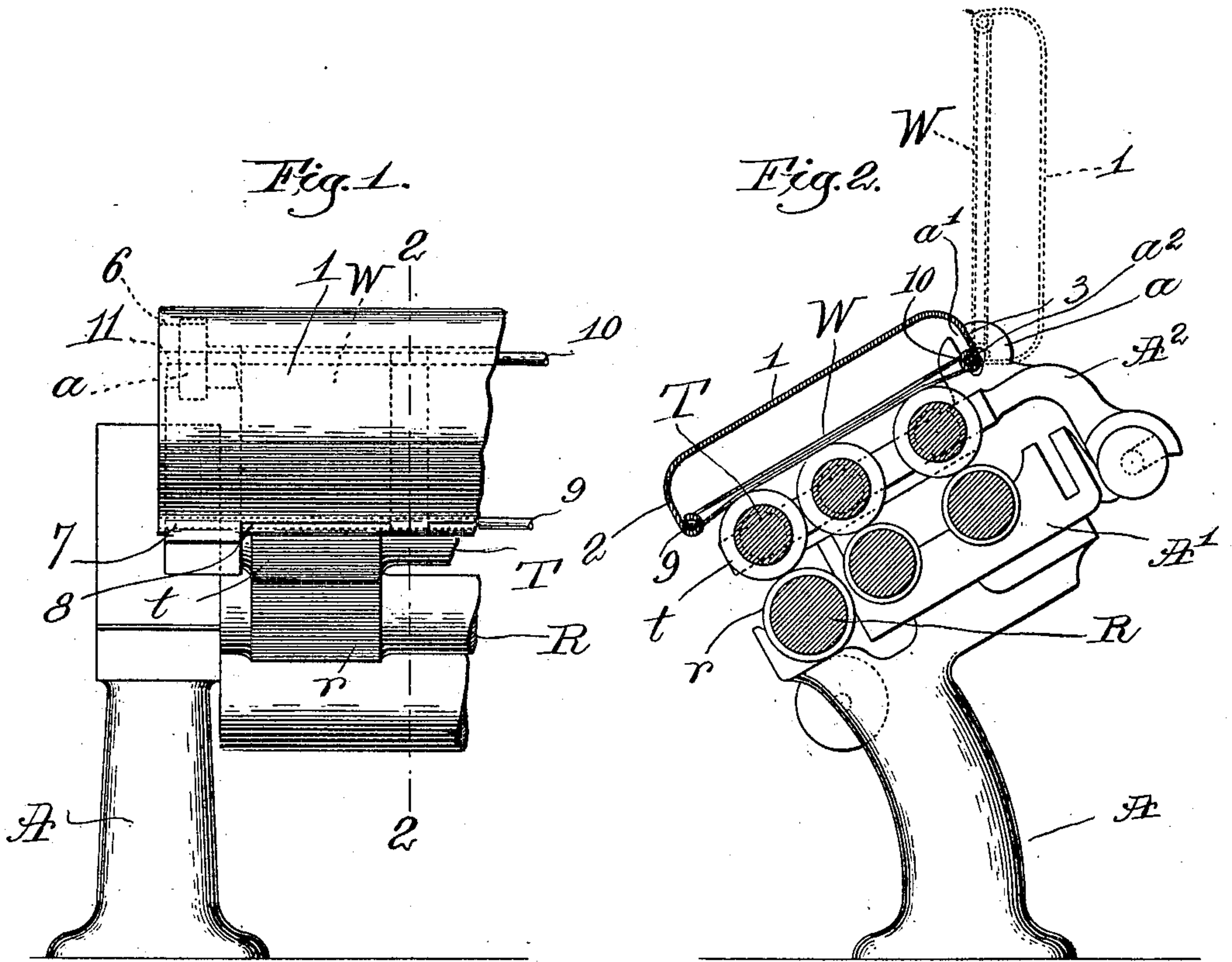
No. 825,584.

PATENTED JULY 10, 1906.

G. E. CHANDLER.

TOP ROLL CLEARER FOR SPINNING FRAMES.

APPLICATION FILED JULY 25, 1905.



Witnesses.  
Thomas J. Drummond.  
S. Wm. Lutton.

Inventor.  
George E. Chandler,  
by Wesley H. Henson,  
Attys.



# UNITED STATES PATENT OFFICE.

GEORGE E. CHANDLER, OF TAUNTON, MASSACHUSETTS, ASSIGNOR TO  
MASON MACHINE WORKS, OF TAUNTON, MASSACHUSETTS, A COR-  
PORATION OF MASSACHUSETTS.

## TOP-ROLL CLEARER FOR SPINNING-FRAMES.

No. 825,584.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed July 25, 1905. Serial No. 271,207.

*To all whom it may concern:*

Be it known that I, GEORGE E. CHANDLER, a citizen of the United States, and a resident of Taunton, county of Bristol, State of Massachusetts, have invented an Improvement in Top-Roll Clearers for Spinning-Frames, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has for its object the production of a light, strong, and convenient device for clearing the top rolls of a spinning-frame from lint or dust which tends to adhere to the rolls as the yarn passes through.

The contacting or clearing member, *per se*, is preferably an endless flat web or band of textile material, usually, which rests upon the top rolls and removes the lint, &c., therefrom, and I have provided a novel cover and sustaining means to connect the clearer web or webs therewith in a very simple and efficient manner.

In accordance with my invention the cover is made of thin metal, preferably sheet metal, on account of its light weight and the care with which it can be shaped, the front and rear ends of the cover being downturned, and at its rear end laterally-separated eyes are provided to receive a continuous transverse rod. This rod is passed through the bights of the several clearer-webs at their rear ends, one of such webs being interposed between two adjacent eyes to thereby sustain and position their rear ends, the opposite ends of said rod projecting to form pintles by which the clearer is pivotally supported. At the front ends the clearer-webs are suitably sustained and connected with the front end of the cover, preferably by a rod, as heretofore referred to, but the ends of the rod do not project, as the front end of the clearer is perfectly free and is supported in normal position by the contact of the clearer-webs with the top rolls. Suitable supports on the spinning-frame are adapted to receive the pintles and permit the swinging movement of the clearer when it is desired to turn the same back to expose the top-rolls.

The various novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a front elevation of a sufficient portion of a spinning-frame to be understood, with a top-roll clearer applied thereto and embodying one form of my invention. Fig. 2 is a transverse section on the line 2 2, Fig. 1, looking toward the left, the clearer being shown in dotted-line position, as thrown upward to expose the top rolls. Fig. 3 is a side elevation of the clearer. Fig. 4 is a rear end elevation (broken out between the sides) of the clearer. Fig. 5 is a perspective view of a portion of the clearer-cover, the clearer-webs being indicated by dotted lines. Fig. 6 is an enlarged detail of one of the notched ears of the pedestal in which the top roll clearer is hinged.

The rolls of the spinning-frame are supported in usual bearings carried by customary pedestals A, the lower rolls R in fixed bearings A', and the top rolls T in bearings on the usual carriers A<sup>2</sup>, (see Fig. 2,) the rolls having usual bosses, as *r t*, only one boss of each set of rolls being shown in Fig. 1. In practice each pedestal will be provided with a suitable upturned ear or lug *a*, one being shown in Figs. 2 and 6, having an angular or substantially V-shaped notch or slot *a'* *a*<sup>2</sup> therein to receive the adjacent pintle of the top-roll clearer, to be described. The part *a'* of the notch is open at its upper end and forms one leg of the V, the part *a*<sup>2</sup>, which forms the other leg, extending upward and rearwardly from the lower end of the part *a'*, as clearly shown in Fig. 6, the part *a*<sup>2</sup> of the notch being shorter than the part *a'* and forming a locking device for the top roll clearer.

In accordance with my present invention each set of top rolls—that is, the group of rolls between two adjacent pedestals—is provided with a clearer comprising a cover and clearer-webs, as many clearer-webs being provided as there are bosses on a roll. The cover 1 is made of thin metal, and preferably of thin yet strong sheet metal of requisite width and downturned at its front and rear ends, as at 2 3, and of such length from front to rear that the cover will extend forward and back beyond the top rolls, as clearly shown in Fig. 2. A series of tubular eyes 4 are formed on the rear end of the clearer, laterally separated from each other by a space slightly in excess of the width of a clearer-



web, the eyes being conveniently made by slitting the edge at intervals, bending up portions to form the eyes, and between the latter removing the metal to present clearances 5, Figs. 4 and 5. The rear end 3 is also cut away at each side adjacent the endmost eyes to leave ears 6 for a purpose to be described. In a very similar manner the front end 2 is slitted, bent to form a series of eyes 7, and cut out between them at 8; but the endmost eyes extend to the sides of the cover.

The clearer-webs W are endless bands or webs of textile or other suitable material of such width that they can be inserted in the clearance-spaces 5 and 8, and said webs are sustained and connected with the downturned front 2 of the cover by a stout wire or rod 9, passed alternately through the eyes 7 and the forward bights of the webs, the ends of said rod being substantially flush with the outer ends of the extreme eyes. A similar rod 10 in like manner sustains the rear ends of the clearer-webs and connects the same with the rear end of the cover; but as the endmost eyes of the series 4 are shorter than the others the ends of the rod project and form pintles, as at 11, Figs. 4 and 5. These pintles are dropped into the open slots  $a'$  in the ears or lugs  $a$  and pivotally sustain the clearer on the main frame, the lower runs of the clearer-webs resting on the top-roll bosses, so that the parts normally assume the positions shown in Fig. 2, and at such time the pintles do not quite reach the bottoms of the slots  $a'$ . (See full lines, Figs. 2 and 6.)

When it is desired to examine the top rolls of any set, the attendant lifts up and swings back the cover of that particular set, the clearer as a whole swinging or turning on the pintles 11, which latter first descend to the bottom of the slots  $a'$  and then rise in the upwardly and rearwardly inclined parts  $a''$ , (see dotted lines, Figs. 2 and 6,) when the ears or lugs 6 rest upon the backs of the ears  $a$ , the latter then serving as fulcra on which the clearer rocks. At such time the pintles 11 engage the upper ends of the parts  $a'$  of the V-shaped

notches, such engagement serving to lock the clearer in open position, and it will so remain until the attendant pulls the clearer forward and down, the pintles then reversing their previously-described movement and resuming the position shown in full lines, Fig. 2.

The structure of the clearer is light, strong, and sufficiently rigid to maintain the clearer-webs as taut as they should be, while positioning them laterally.

When a web can no longer be used because of wear, the holding-rods are withdrawn, a new web inserted, and the rods replaced.

Thus a very efficient clearer is provided, simple in character and cheap to construct.

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

1. In a top-roll clearer for spinning-frames, a metallic cover downturned at its front and rear ends, a transverse rod detachably connected at intervals with the rear end, to sustain the rear ends of a plurality of clearer-webs, the ends of the rod projecting to form pintles to pivotally support the rear end of the clearer, and means to connect the front ends of the clearer-webs with the cover at the front end thereof.

2. A top-roll clearer for spinning-frames, comprising a sheet-metal cover downturned at front and rear and bent to present two series of laterally-separated eyes, and a rod extended through each series, to sustain the opposite ends of a plurality of clearer-webs between adjacent eyes of each series, the rear rod projecting to form pintles for the clearer, combined with a rigid lug for each pintle, having an angular pintle-receiving slot, the inner end of each slot serving to lock its pintle when the cover is swung upward.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE E. CHANDLER.

Witnesses:

EDWARD G. HALL,  
JOHN T. WATS.