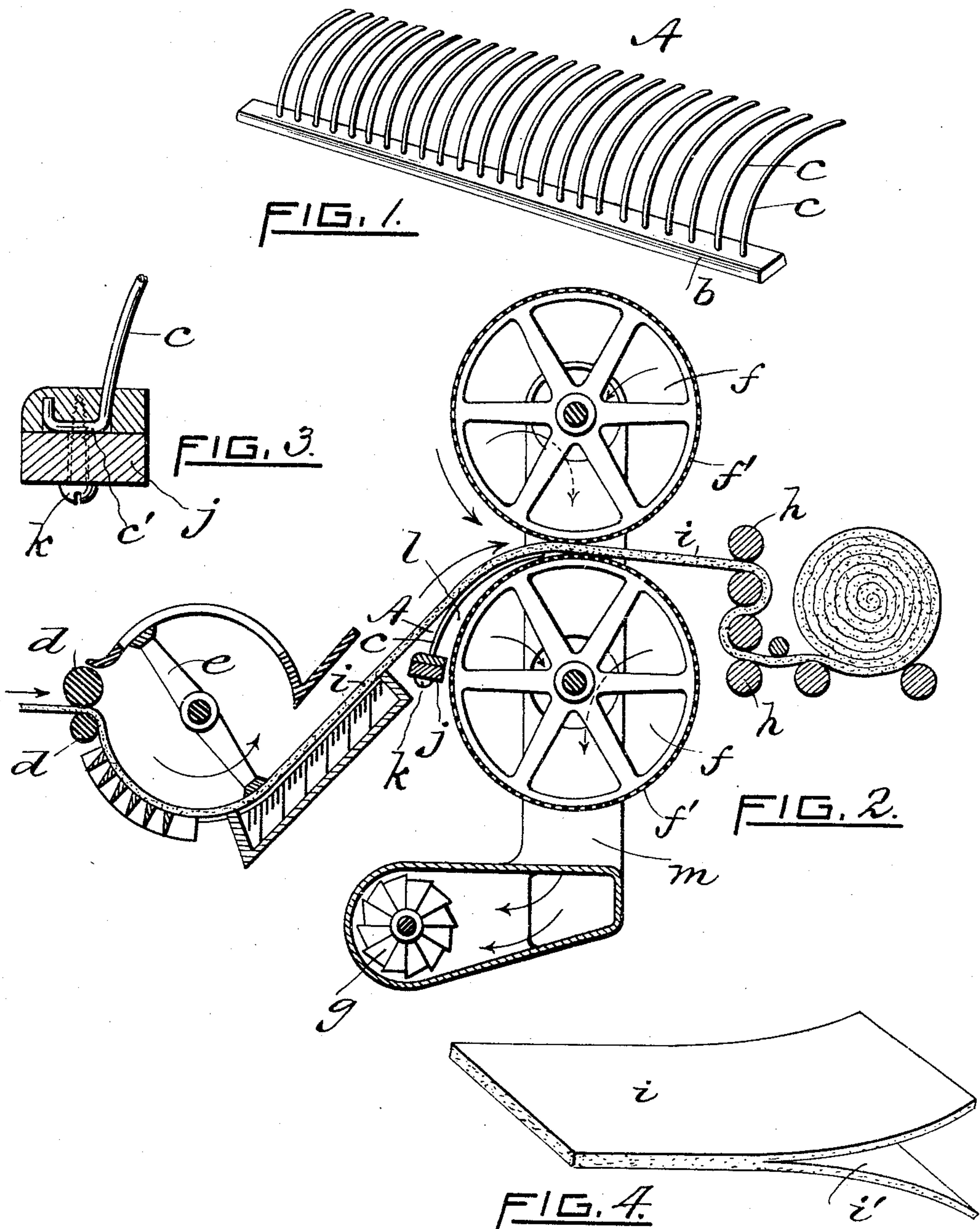


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C. A. BROWN & A. ST. ONGE.
ATTACHMENT FOR COTTON CONDENSERS.
APPLICATION FILED JULY 20, 1904.



WITNESSES.

Milton H. Neal
William H. Peck

INVENTORS

Clements A. Brown.
Amasa St. Onge.
By Charles T. Hannigan,
ATTORNEY.

UNITED STATES PATENT OFFICE.

CLEMENTS A. BROWN AND AMASA ST. ONGE, OF PROVIDENCE, RHODE ISLAND.

ATTACHMENT FOR COTTON-CONDENSERS.

SPECIFICATION forming part of Letters Patent No. 779,635, dated January 10, 1905.

Application filed July 20, 1904. Serial No. 217,406.

To all whom it may concern:

Be it known that we, CLEMENTS A. BROWN and AMASA ST. ONGE, citizens of the United States, residing at the city of Providence, in the county of Providence and State of Rhode Island, have invented a certain new and useful Improvement in Attachments for Cotton-Condensers, of which the following is a specification.

In a cotton-condenser machine which has two screen-cylinders located one above the other and a suction-fan beneath said cylinders it frequently happens that the air-draft created by the fan will cause the cotton-lap to adhere more firmly upon the peripheral surface of the lowermost screen-cylinder by reason of this cylinder having closer connection with and receiving a much stronger draft than the uppermost screen-cylinder. The result is that a split is formed in the cotton-lap, and this imperfect portion of the lap has to be discarded and reworked over again.

The object of our invention is to provide means for guiding the cotton-lap free from the surface of the lowermost screen-cylinder until it reaches a point between both said screen-cylinders, so that splitting of the lap is prevented.

In the accompanying sheet of drawings, Figure 1 represents a perspective view of our improved attachment for a cotton-condenser machine. Fig. 2 is a partial longitudinal section of a cotton-condenser machine as operating upon a cotton-lap, and also showing the normal position of our attachment on said machine. Fig. 3 is an enlarged cross-sectional detail view of our attachment as secured upon the machine-frame. Fig. 4 is a perspective view of a split cotton-lap.

Like characters indicate like parts.

A designates our improved attachment as designed for a cotton-condenser machine. This attachment consists of a wood rail *b* and a series of wires *c c*, which are curved in the form of an arch. Each of the wires *c c* is held in a rigid position on the rail *b* by having one of its ends bent U-shaped, as at *e*, in Fig. 3, and which bent portion of each wire

is let in flush with the bottom surface of the rail.

Referring to Fig. 2, which illustrates a portion of a cotton-condenser machine, *d d* are the feed-rolls, *e* the beater, *f f* the screen-cylinders, *g* the suction-fan, and *h h* the calender-rolls, respectively. In this class of machinery the suction-fan is located below the cylinders *f f*, which have their curved surfaces made of fine-wire screens, as at *f' f'*. The cylinders *f f* have open ends, in order that the air-draft created by the suction-fan will pass through them. This air-draft passes through casings located at each end of said cylinders *f f*, as at *m*, in the direction indicated by the arrows in Fig. 2.

In the ordinary working of the cotton-lap the air-suction is somewhat greater in the lowermost screen-cylinder by reason of this cylinder being closer to the fan than that of the next or uppermost cylinder, so that as the cotton-lap (designated by reference-letter *i*) passes between both screen-cylinders in its movement from the beater to the calender-rolls it is caused to adhere more firmly against the surface of the lower cylinder. Thus a split takes place in the thickness of the lap, as at *i'* in Fig. 4.

Our attachment is applied directly in front of the lower screen-cylinder and is secured in a fixed position upon a portion of the machine-frame *j* by screws *k* in the manner shown in Fig. 3.

This attachment is designed to have the upper ends of its wires *c c* terminate close to a point where the cotton-lap enters between both screen-cylinders, and from this point the wires are curved outwardly, so as to form a clearance, as at *l*, in order to prevent too strong an air-suction from the lower cylinder until the lap reaches said point between both cylinders. In this way the air-draft is equalized upon each surface of the lap, whereby the same is caused to feed regularly and without any split taking place in its thickness.

This attachment contains in itself all that is necessary to afford an effective means to prevent a lap from splitting during its feeding

movement in a cotton-condenser machine and at the same time an attachment that is inexpensive to manufacture.

What we claim, and desire to secure by Letters Patent, is—

1. The herein-described attachment for a cotton-condenser machine, consisting of a rail having a series of wires rigidly secured thereto and each of said wires curved so as to form an arch, substantially as shown and for the purpose specified.

2. In a cotton-condenser machine having two screen-cylinders situated one over the other and a suction-fan arranged to produce an air-draft through said cylinders, the combination therewith, of an attachment designed to be secured upon the machine-frame and lo-

cated in front of the lower screen-cylinder, said attachment consisting of a rail having a series of contiguous wires secured thereto and curved so as to form an arch arranged to guide the cotton-lap free of contact with the peripheral surface of the lower screen-cylinder until it reaches a point between both said screen-cylinders, substantially as described and for the purpose set forth.

In testimony whereof we affix our signatures in the presence of two witnesses.

CLEMENTS A. BROWN.
AMASA ST. ONGE.

Witnesses:

MILTON H. NEAL,
WILLIAM H. PECK.