

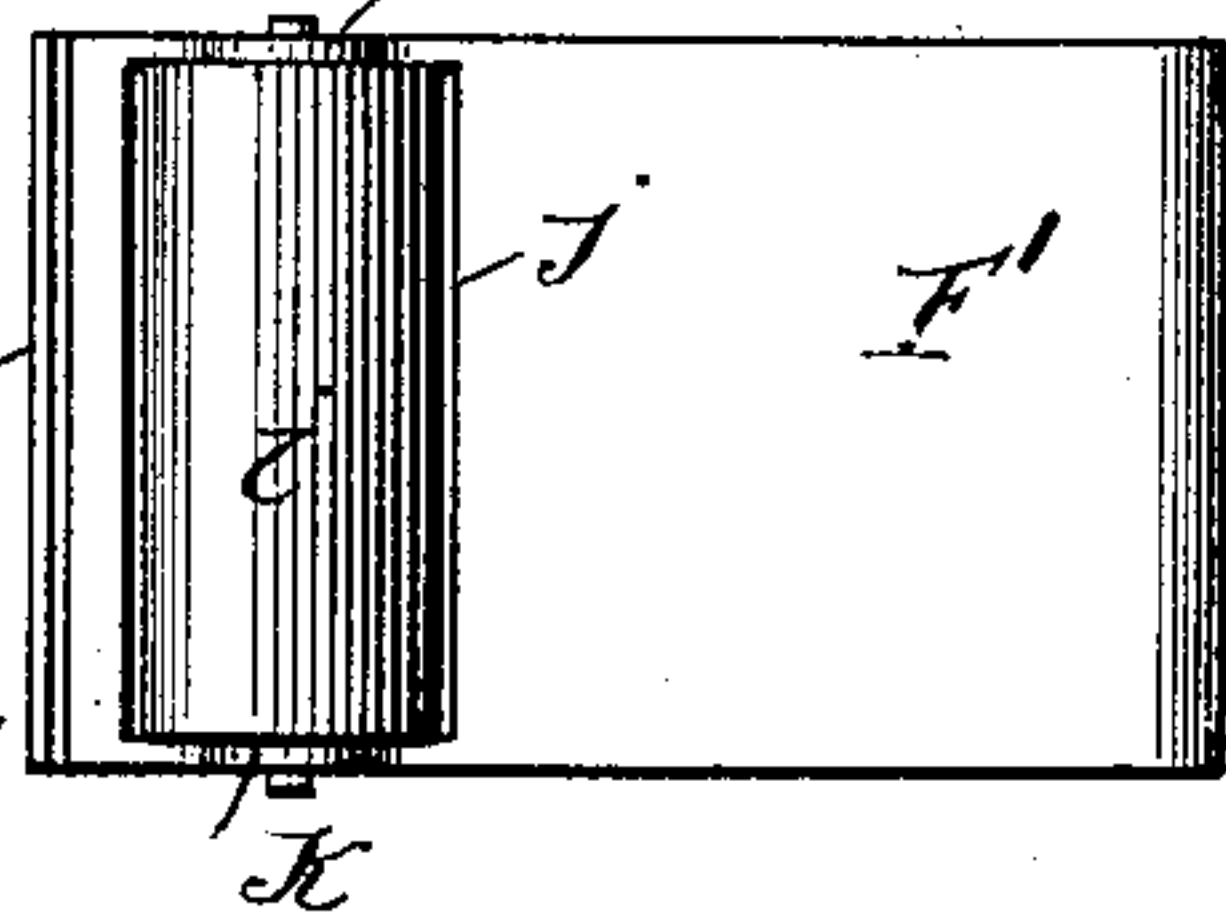
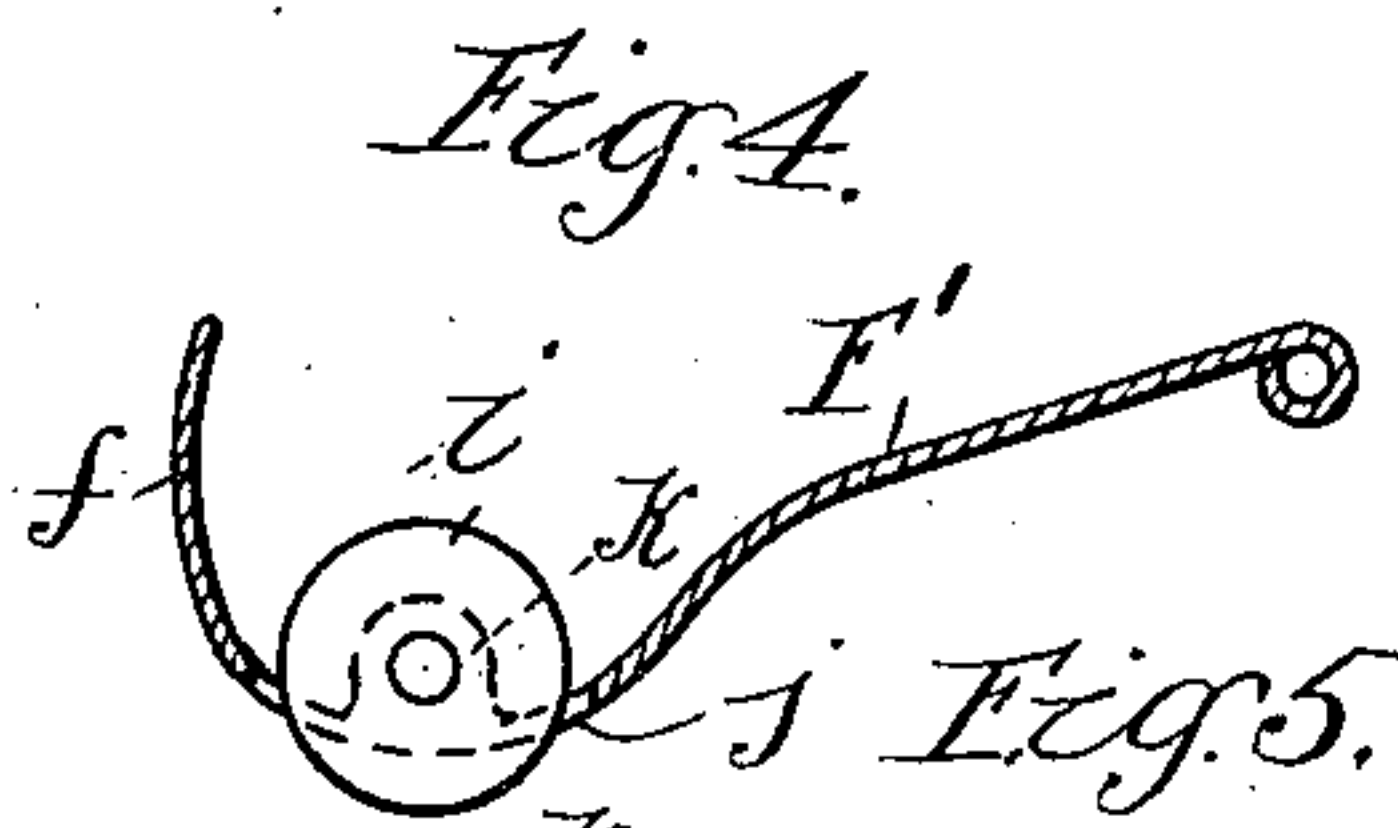
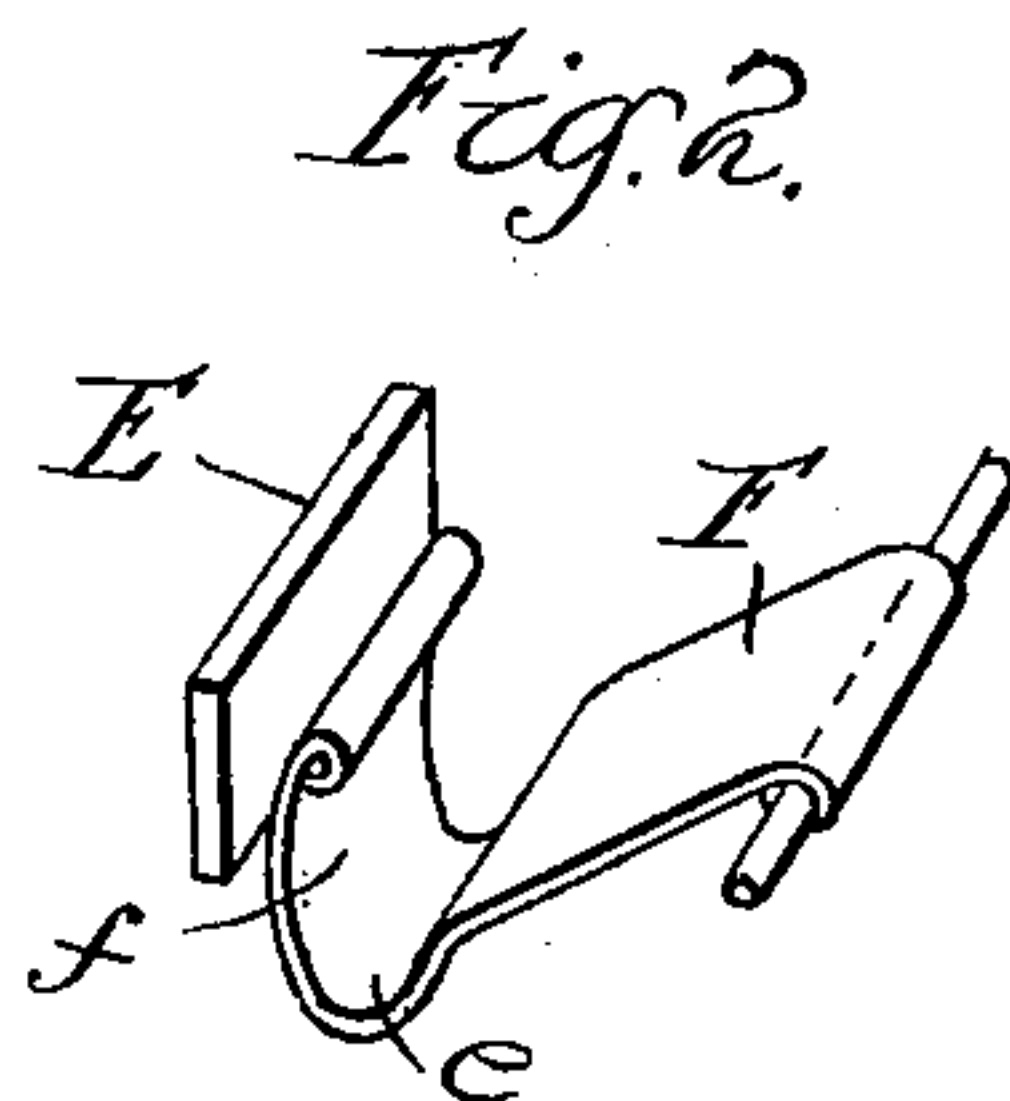
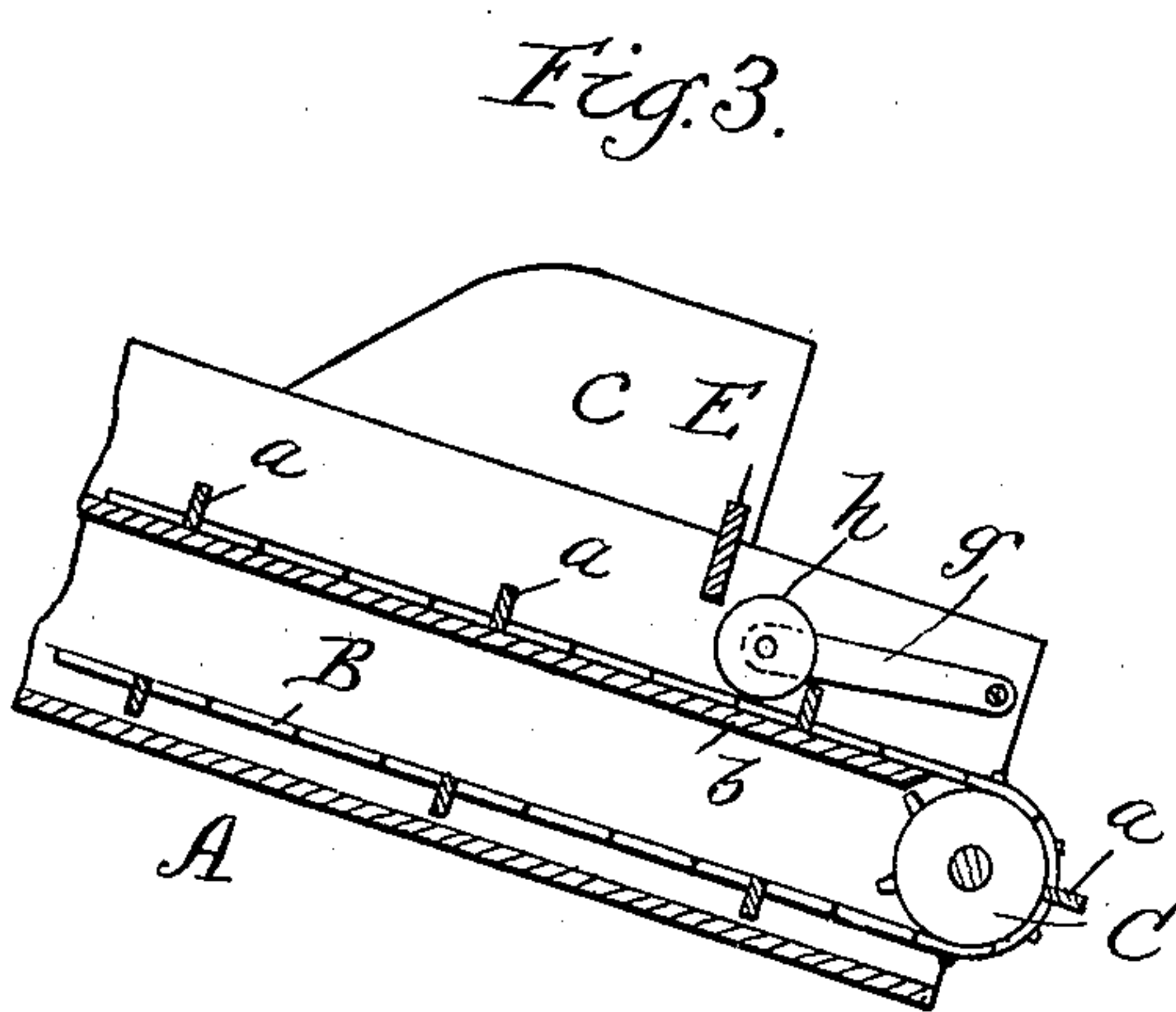
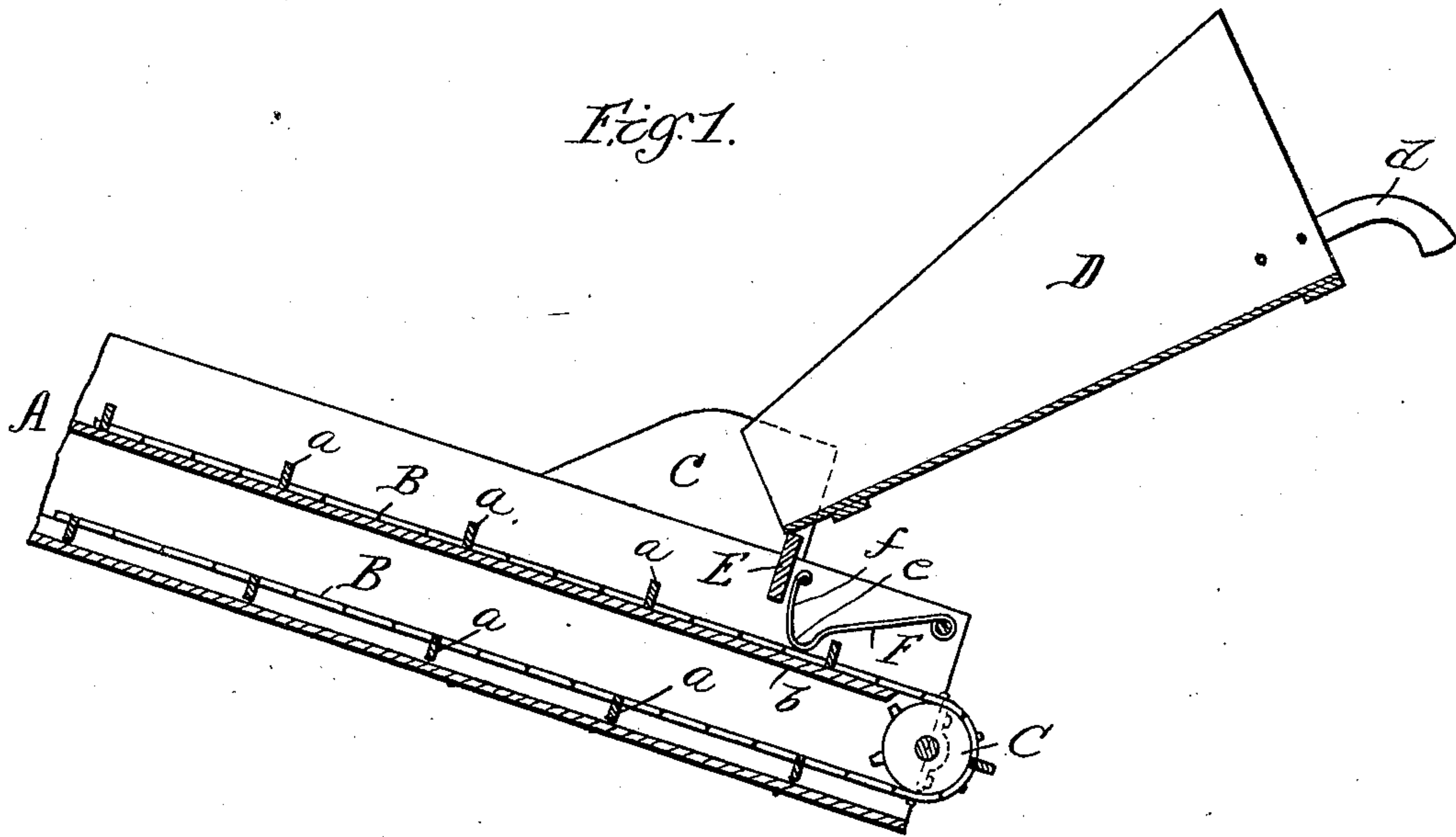
No. 613,762.

Patented Nov. 8, 1898.

F. GAHM.
CORN CONVEYER.

(Application filed June 13, 1898.)

(No Model.)



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANK GAHM, OF RANSOM, ILLINOIS.

CORN-CONVEYER.

SPECIFICATION forming part of Letters Patent No. 613,762, dated November 8, 1898.

Application filed June 15, 1898. Serial No. 683,475. (No model.)

To all whom it may concern:

Be it known that I, FRANK GAHM, a citizen of the United States, residing at Ransom, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Corn-Conveyers, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to conveyers intended primarily for the delivery of corn in the ear, but which are adapted for use in the handling of many other articles; and it has for its object the providing of a novel valve device which while permitting the free passage beneath it of the conveyer-belt, with its projecting cross-strips, will prevent the backward escape of the material that is being delivered and will to a very large extent reduce friction, back pressure, and wear and tear on the device as a whole. I accomplish this object as hereinafter specified and as illustrated in the drawings.

That which I regard as new will be set forth in the claims.

Referring to the drawings, Figure 1 is a longitudinal section of a portion of a conveyer and chute, the valve in the conveyer-box being in elevation. Fig. 2 is a perspective view of the valve shown in Fig. 1. Fig. 3 is a longitudinal section of the conveyer, with a modified form of valve employed therewith. Fig. 4 is a section of still another modification in the construction of the valve, and Fig. 5 is a plan view of the valve of Fig. 4. Figs. 4 and 5 are enlarged.

In the drawings, A indicates a conveyer-trough consisting of bottom and side pieces and is of any approved and well-known style.

B indicates an endless conveyer-belt of any suitable construction, provided on its outer or acting face with suitable devices for engaging the material to be carried, which in the drawings are shown to be strips *a*, extending from side to side of the conveyer-belt and which are well adapted for engaging and holding in place on the belt ears of corn.

C indicates one of a pair of sprocket-wheels around which the belt passes.

b indicates a guiding-piece which may be employed to prevent the conveyer-belt from sagging when loaded.

c indicates short side pieces attached to the sides of the conveyer-trough to aid in properly directing the material to be carried onto the conveyer-belt.

D indicates a chute by which material is fed onto the conveyer-belt, and by means of suitable arms *d* is adapted to be removably secured to the rear end of a wagon.

E indicates a cross-piece secured between the two sides of the trough A, at a point near the rear end of said trough, and serves as a rest for the discharge end of the chute D, as shown, and also acts as a guard to prevent the material on the conveyer-belt from crowding back against the valve F, and thereby interfering with its free rising and falling. This valve F, as shown in Figs. 1 and 2, is made from a single piece, preferably of sheet metal, and is suitably pivoted at its rear end to the side walls of the trough A and sufficiently above the conveyer-belt B to permit the cross-strips A on such belt to pass freely beneath it. As shown, this valve F, near its forward end, is curved, as at *e*, and is then turned upward, forming a front wall *f*. By this construction a rounded surface is presented for the cross-strips *a* to engage as the belt moves forward, which permits the valve to be raised by such engagement without any great amount of friction, and by the upturned portion *f* the space between the lower edge of the cross-piece E and the surface of the conveyer-belt is guarded.

In Fig. 3 I have shown a modification in the construction of the valve. In this construction two arms *g* are suitably pivoted to the sides of the trough A and carry at their forward ends a roller *h*, which the cross-strips *a* can engage and pass with but a trifling degree of friction. In this construction the roller *h* also acts as a guard for the space guarded by the wall *f* of the valve of Figs. 1 and 2.

In Figs. 4 and 5 is shown still another modification in the construction of the valve. In this construction substantially the same form of valve is provided as is shown in Figs. 1 and 2, but with the addition of an anti-friction-roller *i*, which protrudes through an opening *j*, cut in the lower curved portion of the plate F', and which is journaled in ears

k. This construction also permits the passage of the cross-pieces *a* of the conveyer-belt B with but little friction.

By my invention a cheap, simple, and very effective valve device is provided, which allows of the passage beneath it of the carrying devices on the conveyer-belt with but little friction and which will not become clogged or interfered with by back pressure of the material on the belt.

That which I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a conveyer-belt having engaging devices on its surface, of a valve pivoted at one end above said belt and having a rounded portion at its forward end for engagement by said devices on the surface of the belt, substantially as and for the purpose specified.

2. The combination with a conveyer-belt having engaging devices on its surface, of a valve pivoted at one end above said belt and having a rounded portion for engagement by said devices on the belt, and an upwardly-projecting wall forward of said rounded portion, substantially as and for the purpose specified.

3. In a conveying apparatus, the combina-

tion with a trough, a conveyer-belt within the trough, and engaging devices on the belt, of a valve pivoted above said conveyer-belt and having a rounded portion for engagement by said devices on the belt, and a guard forward of the valve to prevent the material on the belt from exerting a backward pressure on said valve, substantially as specified.

4. The combination with a trough A, conveyer-belt B, and cross-strips *a* on said belt, of a valve F pivoted at one end to the sides of the trough A, and having at its forward end a curved portion for engagement by the strips *a*, and a guard E forward of the valve, substantially as and for the purpose specified.

5. In a conveying apparatus, the combination with a trough and a conveyer-belt within the trough and having engaging devices on its surface, of a valve pivoted above said conveyer-belt and arranged to be engaged by said devices on the belt, and a guard forward of the valve to prevent the material on the belt from exerting a backward pressure on said valve, substantially as specified.

FRANK GAHM.

Witnesses:

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