

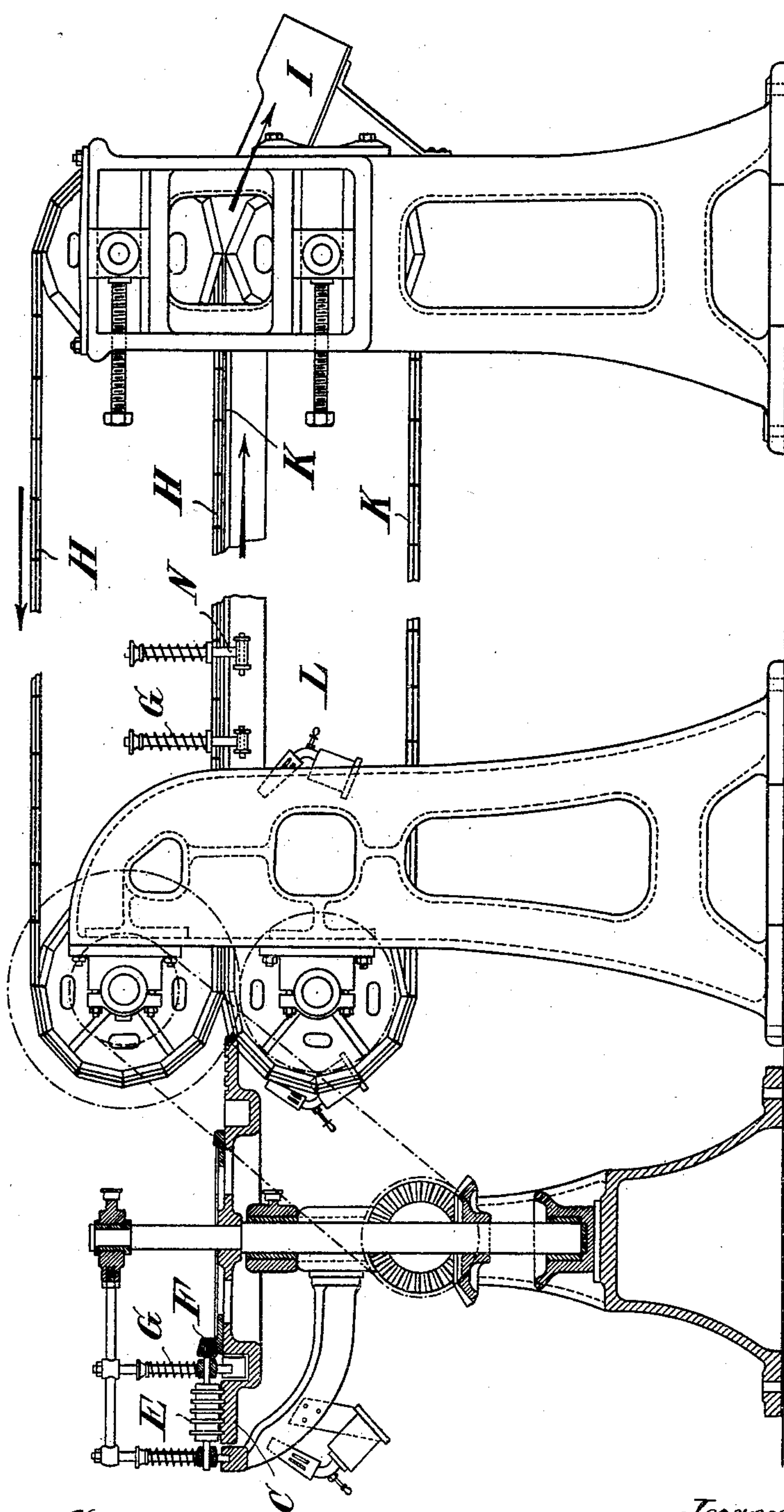
O. HOLZHÄUER.
MACHINE FOR STRETCHING AND STRAIGHTENING WHALEBONE.
APPLICATION FILED FEB. 27, 1908.

931,204.

Patented Aug. 17, 1909.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses:
William Clarke
Willy Schroder

Inventor:
O. Holzhauser

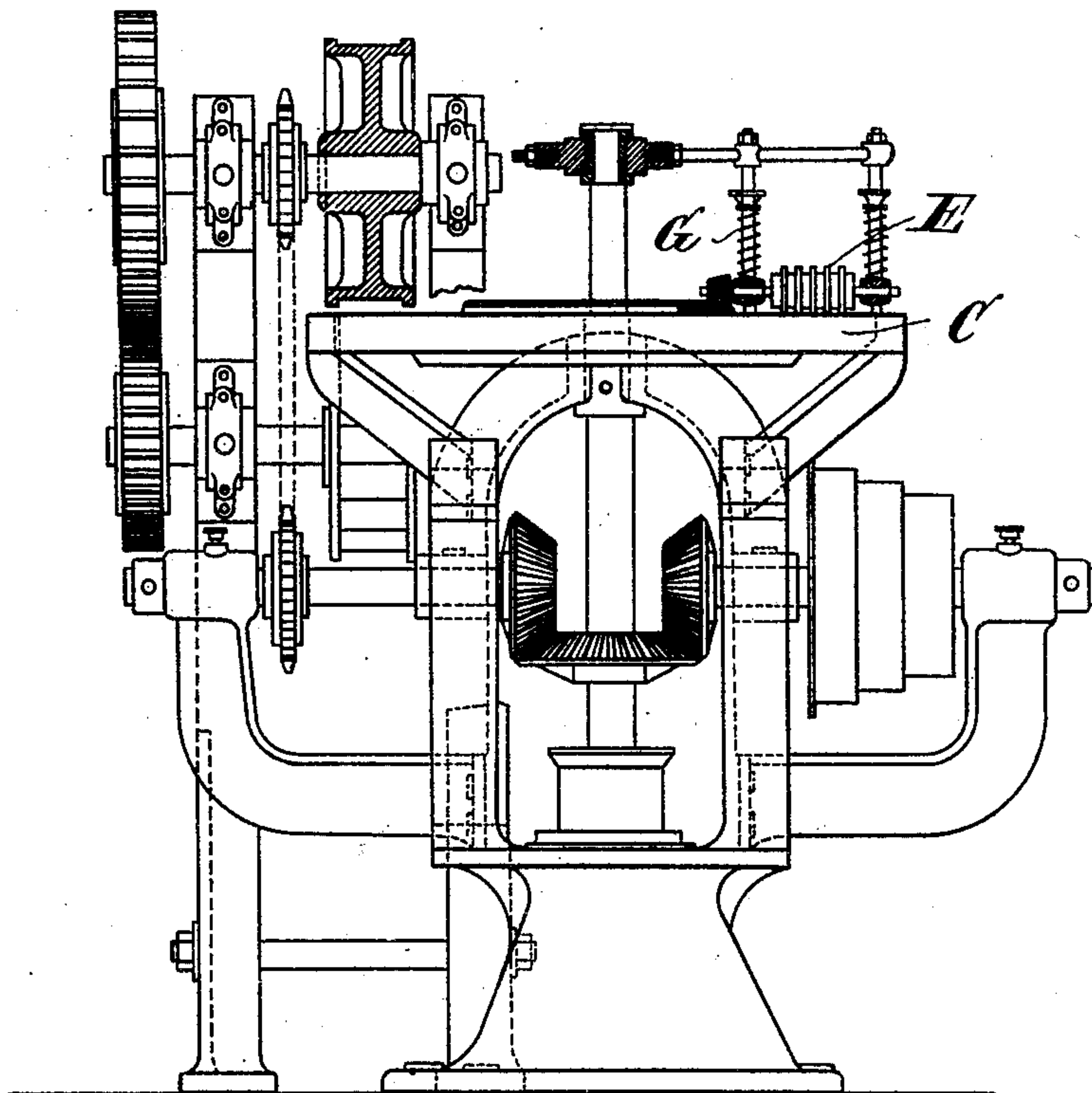
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3 SHEETS—SHEET 2.

Fig. 2.



Witnesses:
Wilhelm Oetzel
Willy Schreiber

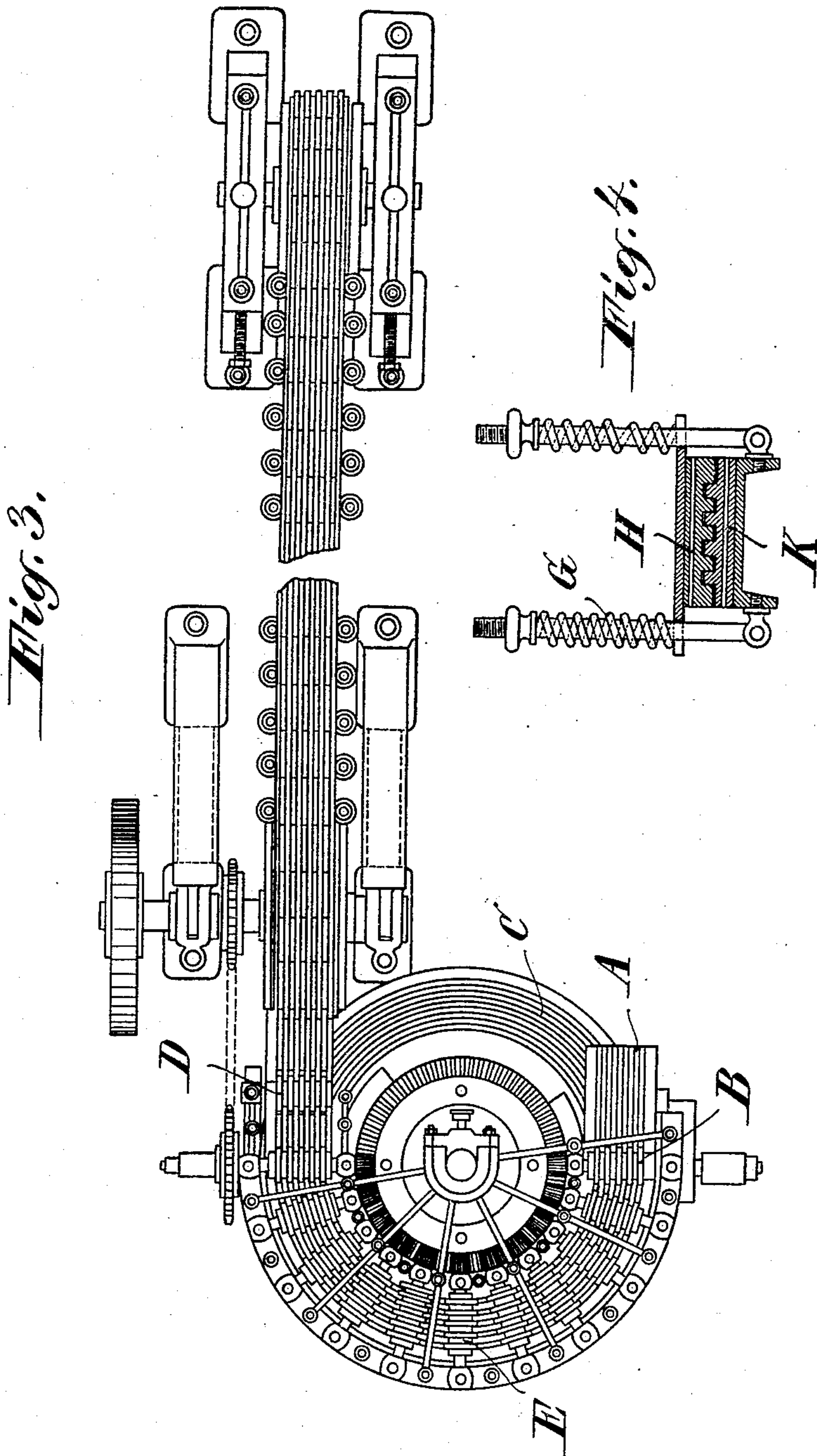
Inventor:
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3 SHEETS—SHEET 3.



Witnesses:
William Crayka
Wiley Schorke

Inventor:
O. Holzhauser

UNITED STATES PATENT OFFICE.

OTTO HOLZHÄUER, OF AUGSBURG, GERMANY.

MACHINE FOR STRETCHING AND STRAIGHTENING WHALEBONE.

No. 931,204.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed February 27, 1908. Serial No. 418,212.

To all whom it may concern:

Be it known that I, OTTO HOLZHÄUER, engineer, a subject of the King of Bavaria and German Emperor, residing at Augsburg, in the Kingdom of Bavaria and Empire of Germany, have invented certain new and useful Improvements in Machines for Stretching and Straightening Whalebone, of which the following is a specification.

10 The present invention relates to an adhesion ironing machine for whalebone in order to be able to stretch and straighten the same. This ironing machine changes the raw whalebone in one single operation into 15 marketable strips of whalebone, and a smoothness and polish can be obtained without there being any appreciable waste.

As compared with older devices for straightening and ironing strips of whalebone, the present machine is differentiated 20 by great simplicity and small amount of waste.

In order that the invention may be clearly understood, reference is made to the accompanying drawing in which one embodiment is represented by way of example, and in 25 which:—

Figure 1 is a side elevation of part of the machine and a section through the ironing 30 mechanism, whereas Fig. 2 is a front elevation partly in section, Fig. 3 a plan, and Fig. 4 an elevation with a section through the spring-pressed, grooved irons combined to form an endless chain.

35 Referring to the drawings, the strips of whalebone which are still raw and for the most part curved like a sword are placed at the feeding-bridge A. Supposing the machine to be five-partite, *i. e.* five strips can 40 be inserted at once, the first roller B seizes all five strips on the feeding-bridge A and conveys the same onto the horizontal grooved track or disk C which is heated to a certain temperature by blow-pipe flames for ex- 45 ample. The heating of the disk C is indispensable, since whalebone can only be bent, stretched and ironed when heated. The whalebone must be so inserted that the natural curvature of the same is opposed to that 50 of the horizontal disk C. The small rollers E are under the pressure of the spiral springs

G and are driven by bevel-wheels F. The whalebone being run by the rollers E between the roller D of the horizontal track or disk C, is bent in a manner contrary to 55 its original state. The strips are then conveyed between the slightly warmed endless chains H and K which are likewise grooved and engage in one another; these chains are driven at different speeds, the upper chain 60 H running faster than the lower, whereby the whalebone obtains a polish and shape, so that it passes from the machine through chute I ready for use. The grooved chains H and K are pressed one against the other 65 by the bolts N pivoted on the straight track L, these bolts N being provided with regulatable spiral springs G.

What I claim as my invention and desire to secure by Letters Patent is:— 70

1. In an ironing machine for stretching and straightening whalebone, the combination with a circular grooved track (C), spring-pressed grooved rollers (E) mounted over and gearing with the track, and means 75 for rotating said track, of two superposed endless chains (H, K) composed of irons, means pressing the latter together, means for driving said chains at different speeds, and roller (D) for guiding whalebone from 80 said track to between said chains.

2. An ironing machine for stretching and straightening whalebone, comprising in combination a grooved disk (C) having a rack, spring-pressed grooved rollers (E) running 85 on said disk, toothed wheels on said rollers meshing with said rack, means for rotating said disk, two superposed grooved endless chains (H, K), spring-pressed means pressing the top of one chain against the bottom 90 of the other chain, said chains being adapted to be driven at different speeds and consisting of a plurality of grooved irons adapted to be heated, and grooved roller (D) for guiding whalebone from said disk to be 95 tween said chains.

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

OTTO HOLZHÄUER.

Witnesses:

LOUIS F. MULLER,
MATHILDE K. HELD.