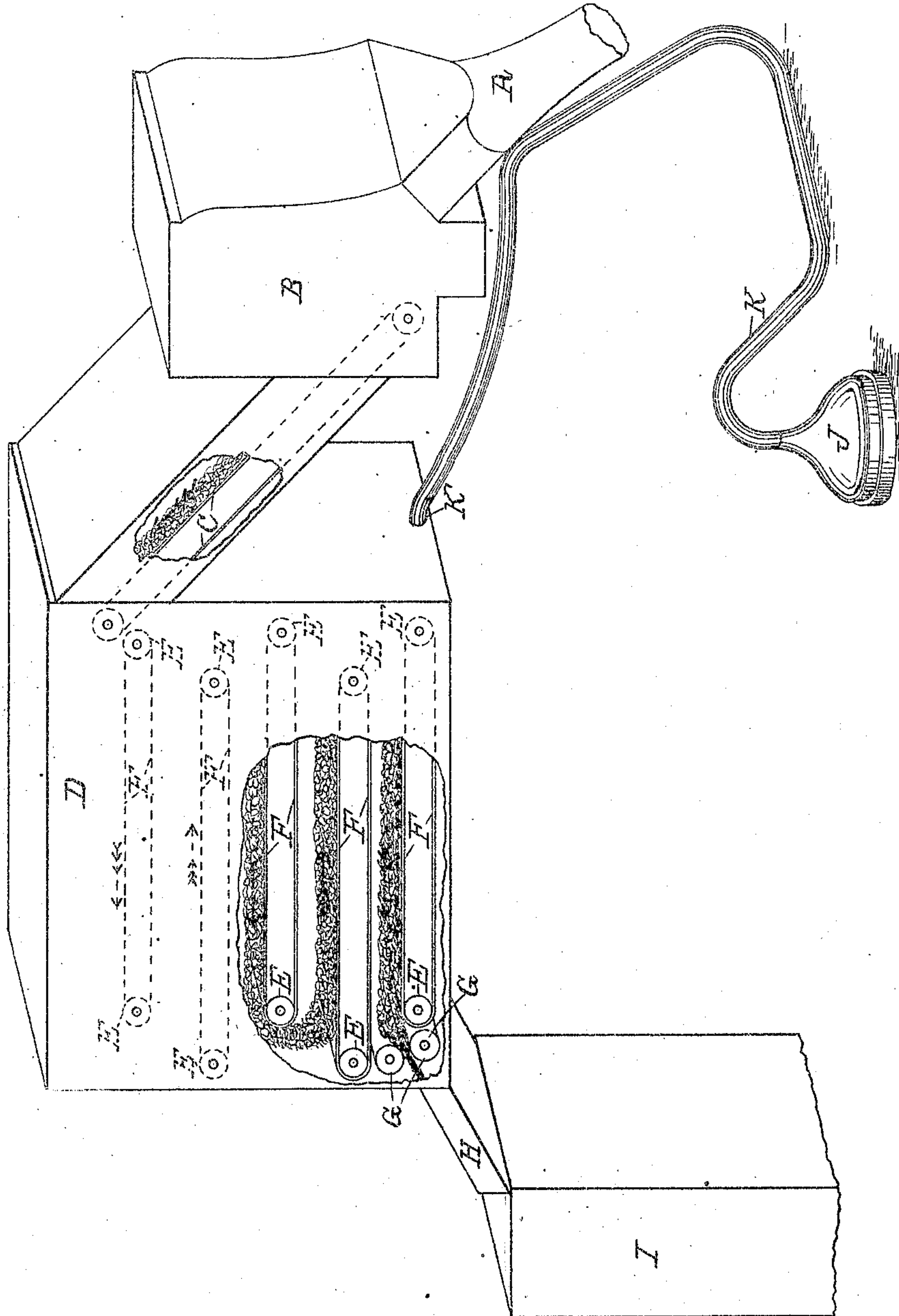


No. 880,005.

PATENTED FEB. 25, 1908

J. B. BRENNAN.
APPARATUS FOR BLEACHING COTTON.

APPLICATION FILED JULY 15, 1907.



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Witnesses.

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JOHN B. BRENNAN, OF SHERMAN, TEXAS.

APPARATUS FOR BLEACHING COTTON.

No. 880,005.

Specification of Letters Patent.

Patented Feb. 25, 1908.

Application filed July 15, 1907. Serial No. 383,753.

To all whom it may concern:

Be it known that I, JOHN B. BRENNAN, a citizen of the United States, residing at Sherman, in the county of Grayson and State of Texas, have invented certain new and useful Improvements in Apparatus for Bleaching Cotton, of which the following is a specification.

This invention pertains to an apparatus and process of treating lint cotton as it passes from the gin to bleach or whiten the same; and relates particularly to means for subjecting the cotton to the action of a gaseous medium, preferably sulfur fumes, which will operate to bleach or whiten the cotton thus increasing the market value thereof.

The object of the present invention is not to claim broadly any particular bleaching compound, but to provide a device by which any suitable or well known bleaching medium may be brought in contact with the cotton, subjecting it to the action of the bleaching element for regular predetermined intervals as it is carried along within the receptacle.

In a former application filed by me on the 28th day of May, 1907, Serial No. 376,183, an apparatus for bleaching cotton is described and shown which subjects the cotton while in a loose mass within a receptacle to the action of a bleaching medium but does not include means for continuously conveying the cotton within the receptacle and regularly delivering it to condensing rollers located at the bottom of the receptacle. It is the object, therefore of the present application to include these features.

A large proportion of the cotton crop does not command the highest price when placed upon the market for the reason that it is not white; it may possess all the qualities of fine, long fiber but if stained or otherwise discolored its value is lessened; so to give cotton the desired color and proportionately increase its value without destroying or changing any of the fibrous qualities thereof is an object of this invention.

In order that the invention may be clearly understood, I have illustrated in the accompanying drawing apparatus for carrying out my process.

In the said drawing, Figure 1 is a perspective view in elevation of the necessary apparatus for continuously subjecting cotton to a bleaching process as it passes from the gins.

By reference to the aforesaid Fig. 1 A indicates a tube through which the cotton

when ginned is blown upward and into the condenser box B. When my bleaching apparatus is to be employed the condensing rollers should be removed from this box as it is desirable to have the lint cotton as loose as possible when subjected to the action of the bleaching elements. From the box B the lint is carried by an endless apron C or other suitable conveyer to the bleaching receptacle D which it enters, preferably near the top as shown. This receptacle is rectangular and within it, near the ends, are mounted for rotation a series of rollers E that extend transversely from one side of the receptacle to the other and in which opposite sides they are journaled; these rollers are arranged in pairs horizontally, each pair carrying an endless apron F that travel horizontally in the direction indicated by the darts. Any desired number of these aprons may be provided, all being arranged one above the other and spaced a sufficient distance apart to receive and convey the loose cotton without compressing it. The rollers may be driven by any suitable gearing or the like devices (not shown) causing each alternate apron to travel in an opposite direction.

Cotton to be treated is deposited on the top apron near one end of the receptacle and is carried by it horizontally through the length of the box to near the opposite end when it drops to the next apron which traveling in an opposite direction carries it back to near the other end, when it again drops to the next succeeding apron and so on until it reaches the bottom apron when it is delivered by it to condensing rollers G that compresses the cotton and delivers it through conductor H to the press box I.

The bleaching compound consists preferably of fumes from burning sulfur, and any simple method of burning the sulfur and generating the fumes may be employed; J shows a common style of furnace and consists of an inverted funnel shaped vessel containing a pan in which the sulfur is placed; when ignited it at once throws off the desired fume which may be conducted through a hose K or other medium to the bottom of the bleaching receptacle where it is shown connected at K'.

In operation, sulfur contained in the furnace J is ignited and the fume as generated conducted through tube K and deposited within the receptacle D; when the fume has attained sufficient density the gins and other

machinery are set in motion; when lint cotton will pass upward through the flue A into the condenser box B; the conveyer C will carry and deposit it on the top apron F within the receptacle, where it at once comes in contact with the bleaching element, and continues subject to it while being carried along by all of the series of aprons within the receptacle; the lower apron delivering it to
 10 condensing rollers G that continuously deposits the bleached cotton within the press-box I, which operation continues as long as there is cotton to gin.

I do not claim any particular bleaching
 15 compound, or any particular method of producing the same; but

What I do claim and desire to secure by Letters Patent of the United States, is—

The combination with a closed bleaching
 20 receptacle, of means for supplying material to the upper portion of the receptacle, super-

posed independently operated aprons in the receptacle and arranged to travel in opposite directions, the alternate aprons reaching
 25 from one end of the receptacle to near the opposite end so as to cause the material to drop from one apron to the next lower one in zigzag fashion to the apron at the bottom of the receptacle, condensing rollers in the
 30 bottom of the receptacle adjacent the end of the last apron to receive material therefrom and pass the same outward, and means for introducing a gaseous bleaching compound to the material during its passage over the
 35 aprons.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN B. BRENNAN.

Witnesses:

R. S. BATES,

J. B. STINSON.