No. 731,905. PATENTED JUNE 23, 1903.

W. H. HOWARD.

CLOTH FOLDING MACHINE.

APPLICATION FILED OCT. 10, 1902.

NO MODEL.

FIG. 1.

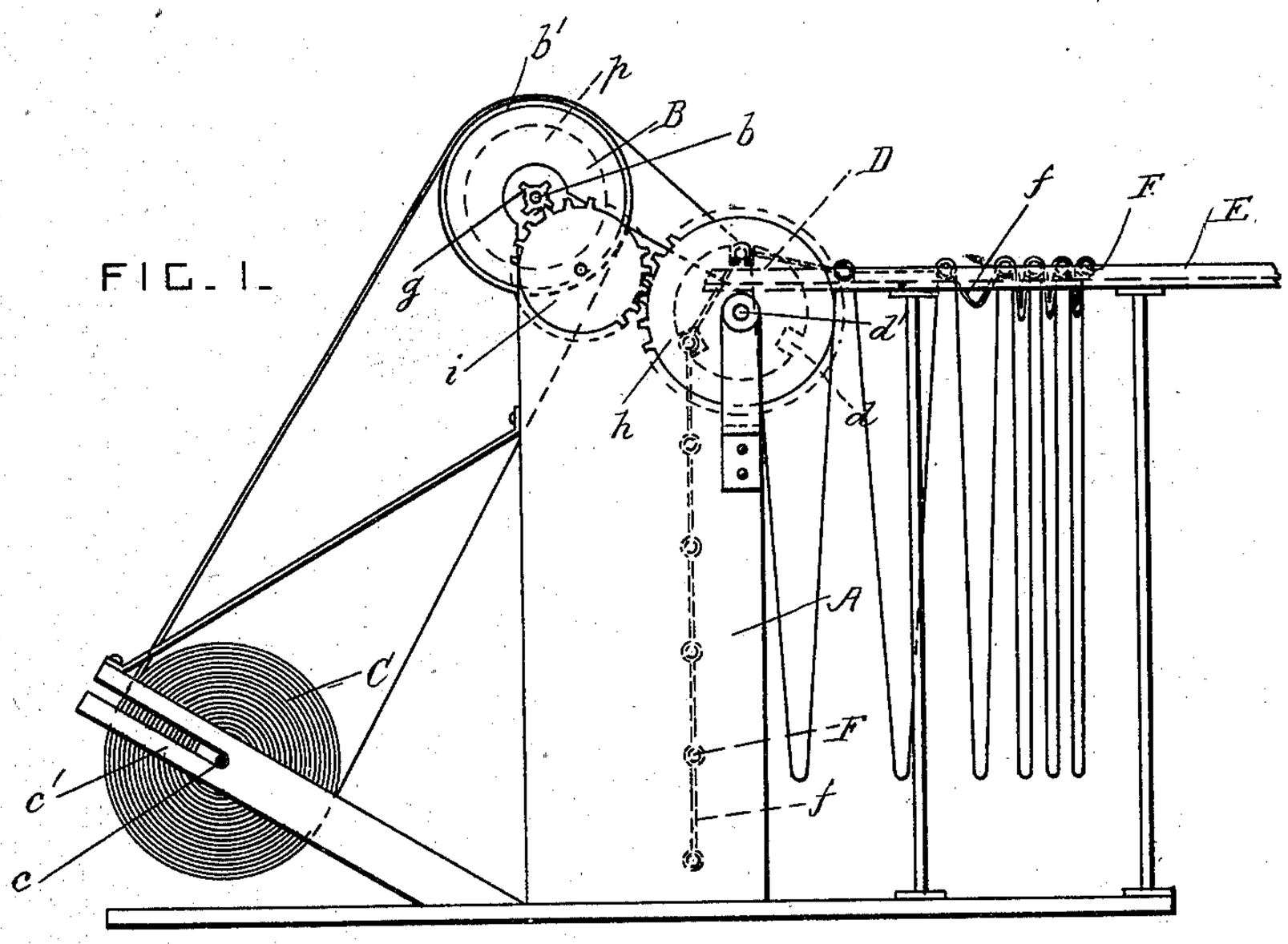
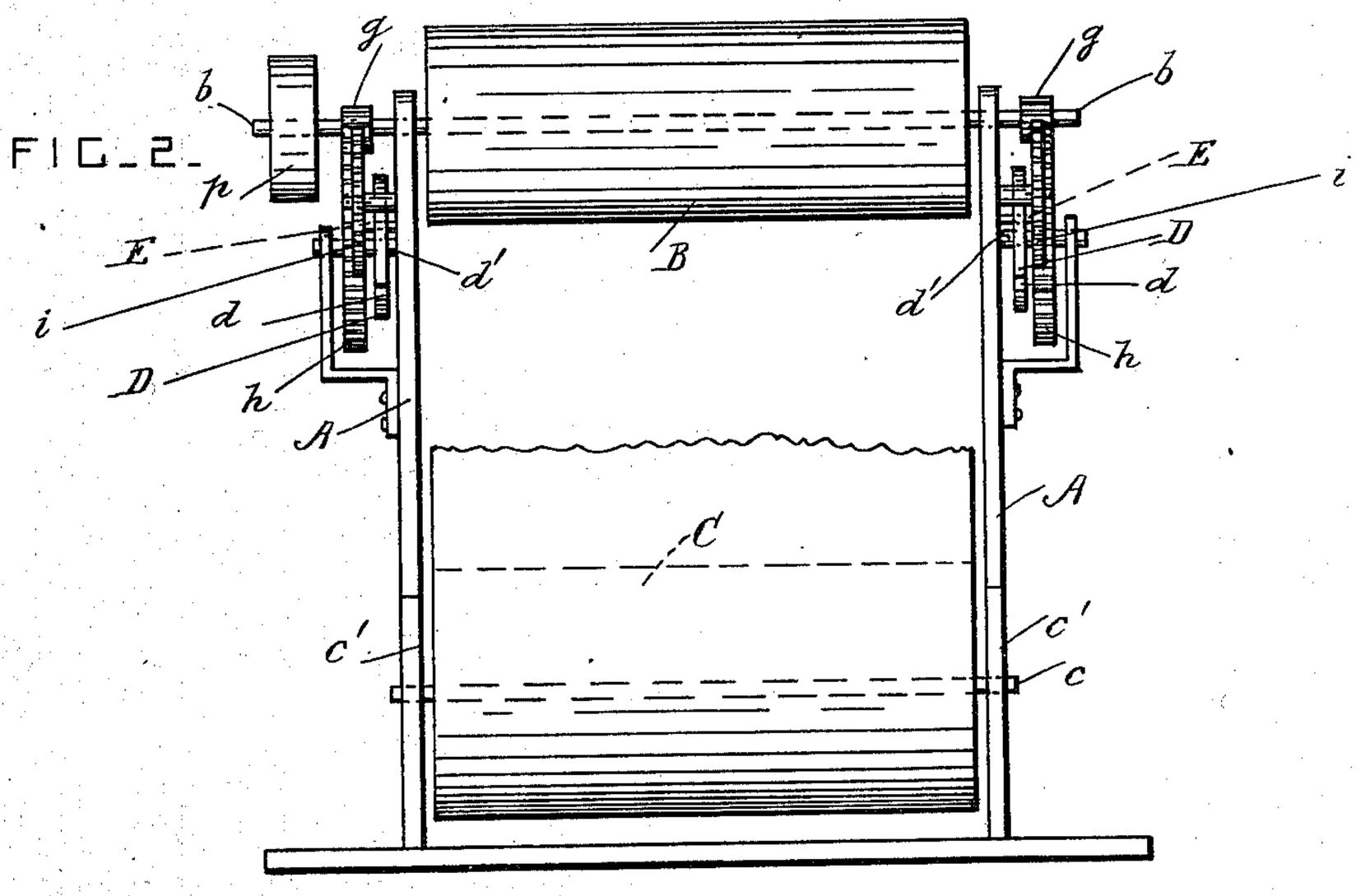


FIG. 2.



WITNESSES

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No. 731,905. Patented June 23, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM H. HOWARD, OF STOUGHTON, MASSACHUSETTS.

CLOTH-FOLDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 731,905, dated June 23, 1903.

Application filed October 10, 1902. Serial No. 126,735. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. HOWARD, a citizen of the United States, residing at Stoughton, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Cloth-Folding Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to machines for arranging textile material, such as cloth, in folds and upon bars, so that it may be dried or otherwise treated; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of the folding-machine. Fig. 2 is an end view of the same.

A is the frame of the machine, and B is a driving-roll journaled in the said frame and preferably covered with soft material *b'*—such as cloth, paper, or wire-brush fabric—so as to enable it to have a better driving contact with the goods.

C is a roll of goods, such as cloth, mounted on a spindle *c*, which is journaled in inclined and forked bearings *c'* on the frame A. The cloth is passed from the roll C over the roll B, thence around the roll C, and over the roll B again, so that there may be a good driving contact between the roll B and the cloth and so that the cloth will not be stretched.

The machine may be driven by hand or by power, as found convenient, and either or both of the spindles may have the driving pulley or pulleys *p* secured on them.

D represents spacing-wheels provided with notches *d* and mounted on short shafts *d'*, journaled in the frame A, one at each end of the roll B.

E represents track-bars supported horizontally in any approved manner and operating to support the goods or cloth when in its folded condition.

F represents cross-bars for supporting the loops or folds of the cloth. These cross-bars have their end portions connected together in a series by flexible connections *f*, such as cords or bands. The cross-bars F are all arranged at the same distance apart as the notches in the spacing-wheels which engage with them and place them on the track-bars E.

Toothed pinions *g* are secured on the shaft *b* of the driving-roll B, and toothed wheels *h* are secured on the shafts *d'* of the spacing-wheels. Idle wheels *i* are arranged in gear with the pinions *g* and wheels *h*. The size of the wheels and pinions can be varied, so as to form loops or folds of different lengths. The spacing-wheels are driven at the same speed and at a much slower speed than the driving-roll. This is done so that the web may be looped upon the cross-bars.

When the machine is driven in one direction, the cloth is transferred from the roll and is arranged in loops or folds on the cross-bars. When the machine is reversed, the cloth is rewound into the form of a roll. The cross-bars and the folds of cloth are slid along the track-rails in any approved manner, and when the cloth or other material is thus folded on the cross-bars it can be dried or otherwise treated.

What I claim is—

1. The combination, with a driving-roll, of spacing-wheels, driving mechanism which revolves the spacing-wheels at a slower speed than the driving-roll, a series of cross-bars for supporting the goods in loops, flexible connections normally holding the said cross-bars at the correct distance apart for engaging with the spacing-wheels and permitting them to slide closer together when discharged by the said spacing-wheels, and means for supporting the said cross-bars after they have been discharged by the said spacing-wheels, substantially as set forth.

2. The combination, with a frame, a driving-roll journaled in the frame, and bearings on the frame for supporting a roll of goods; of spacing-wheels journaled in the said frame, driving mechanism which revolves the said spacing-wheels at a slower speed than the said driving-roll, a track, cross-bars for sup-

porting the goods in loops said cross-bars being slidable on the said track, and flexible connections normally holding the said cross-bars at a prearranged distance apart and permitting them to slide closer together when discharged onto the said track, substantially as set forth.

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

WILLIAM H. HOWARD.

Witnesses:
ALICE J. MURRAY,
FREDERICK K. DAGGETT.