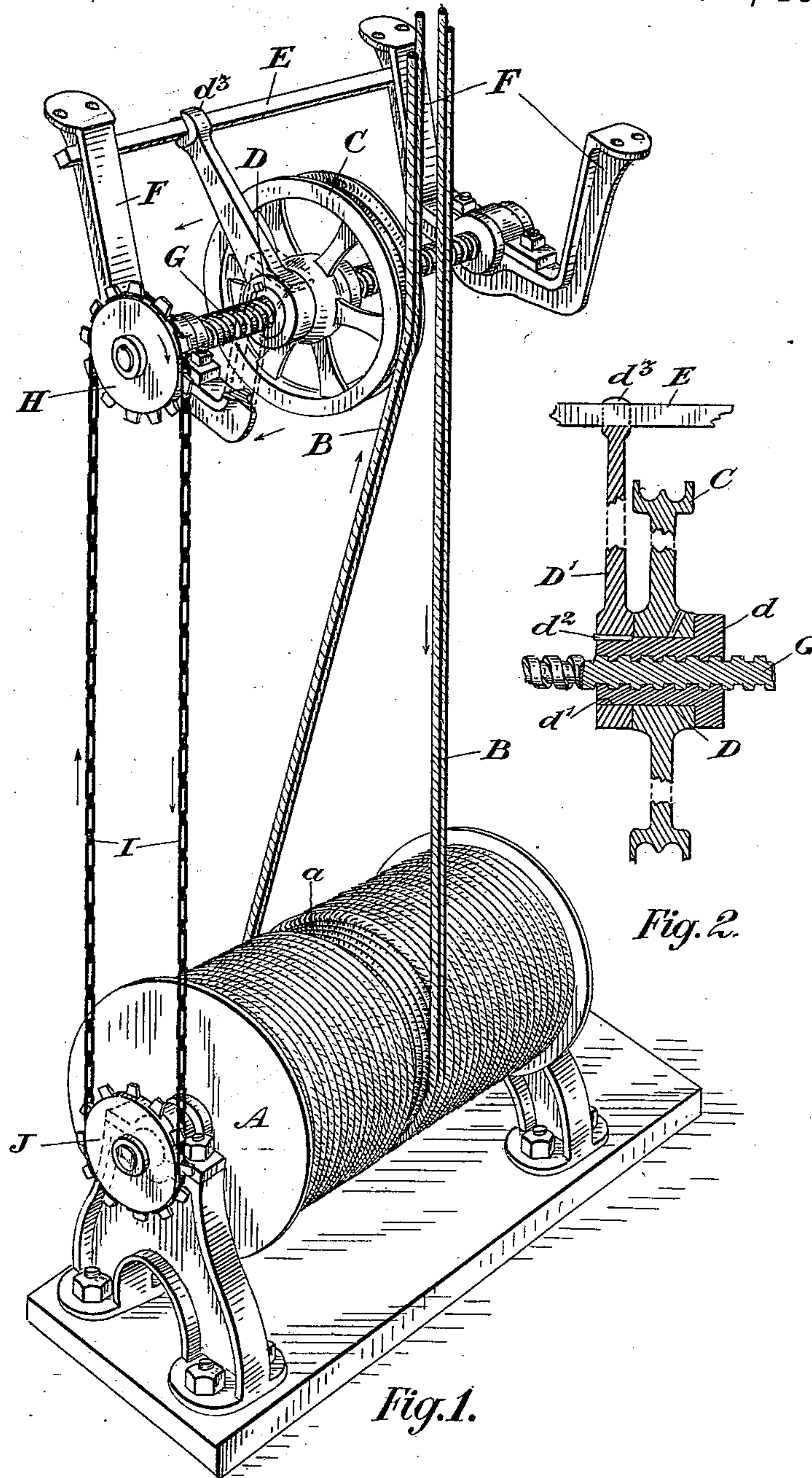


(No Model.)

J. FENSOM.
GUIDE SHEAVE FOR ELEVATORS.

No. 561,215.

Patented June 2, 1896.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN FENSOM, OF TORONTO, CANADA.

GUIDE-SHEAVE FOR ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 561,215, dated June 2, 1896.

Application filed March 16, 1895. Serial No. 542,039. (No model.)

To all whom it may concern:

Be it known that I, JOHN FENSOM, manufacturer, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Guide-Sheaves for Elevators, of which the following is a specification.

My invention relates to improvements in guide-sheaves more particularly adapted for guiding deflected cables of elevator apparatus; and the object of the invention is to provide a simple means for causing a lateral movement of the guiding-sheave simultaneously with the lateral movement of the cable, so as to prevent such cable wearing on the flanges of the sheave; and it consists in the combination of parts and particular arrangement of elements, as will be hereinafter described, and particularly pointed out in the claim.

Figure 1 is a perspective view of a winding-drum and sheave and mechanism connected therewith involved in my invention. Fig. 2 is a longitudinal section through the sleeve and spindle and arm connected to the sleeve.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the winding-drum, which is provided with grooves *a* of the requisite width to receive one portion of the double cable B. The drum A is journaled in suitable bearings, as indicated. The cable is in two portions and is so arranged that when one portion is winding upon the drum the other portion is unwinding. The arrows shown in the drawings indicate the direction that the cable is moving in order to cause the elevator-car to ascend. One portion of the cable B is shown passing over a guide-sheave C, which is journaled on a sleeve D, provided with a flange *d*, which serves to keep the sheave in position at one side. The sheave is prevented from moving laterally on the sleeve in the opposite direction by an arm D', which has an opening *d'*, which passes over this end of the sleeve. The arm D' is secured rigidly to the sleeve by a key *d*². The outer end of the arm has a fork

*d*³, which passes over a square bar E, supported in the hanger-brackets F, in the lower end of which is journaled the end of the threaded spindle G, which passes through the sleeve D. The pitch of the thread of the spindle G preferably corresponds with the width of the double cable B or two adjacent grooves in the drum around which it passes.

H is a sprocket-wheel secured on one end of the spindle G and connected by a sprocket-chain I to a sprocket-wheel J, secured on the end of the drum-shaft and preferably of the same size as the sprocket-wheel H.

It will now be seen that upon each rotation of the drum the threaded spindle will be caused to rotate once, and consequently as the cable guided by the sheave winds or unwinds from the drum such sheave will be kept continuously vertically over the varying positions assumed by this portion of the cable as it passes to or from the drum. The sheave is also permitted a free rotation upon the sleeve, which is held securely from turning by the arm.

Although I show the pitch of the thread on the screw-spindle as corresponding to the pitch of the drum it will of course be understood that the pitch of the screw-spindle might be more or less, in which case the size of the driving-gear connecting the screw-spindle with the drum would be varied to suit.

What I claim as my invention is—

The combination with the winding-drum of a rotatable screw-spindle, a sleeve having a flange at one end and an arm keyed to the opposite end and held against rotation at its outer end as specified, a guide-sheave journaled on said sleeve between the flange and arm and means connecting the drum with the spindle to cause such spindle to rotate in unison with the drum, as and for the purpose specified.

JOHN FENSOM.

Witnesses:

B. BYD,
H. G. S. YOUNG.