

Huret & Debruyne. Spinning Mach

N^o 92,830.

Patented Jul. 20. 1869.

Fig. 1.

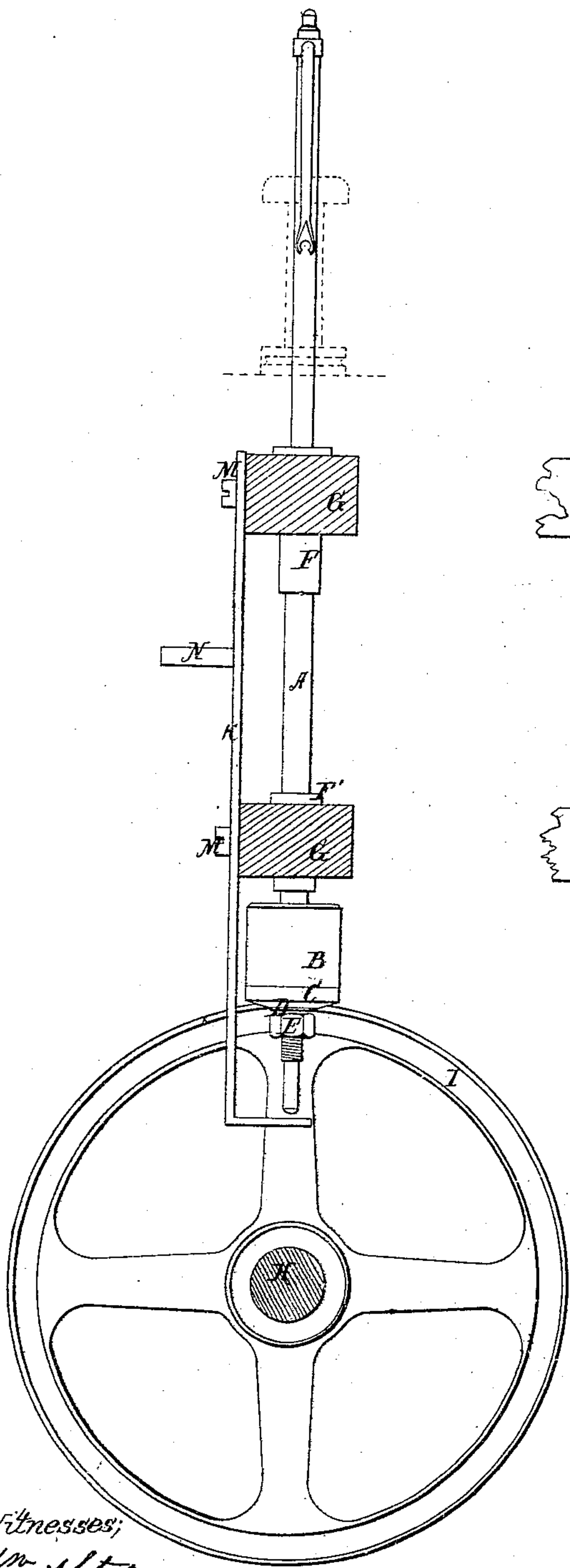


Fig. 2.

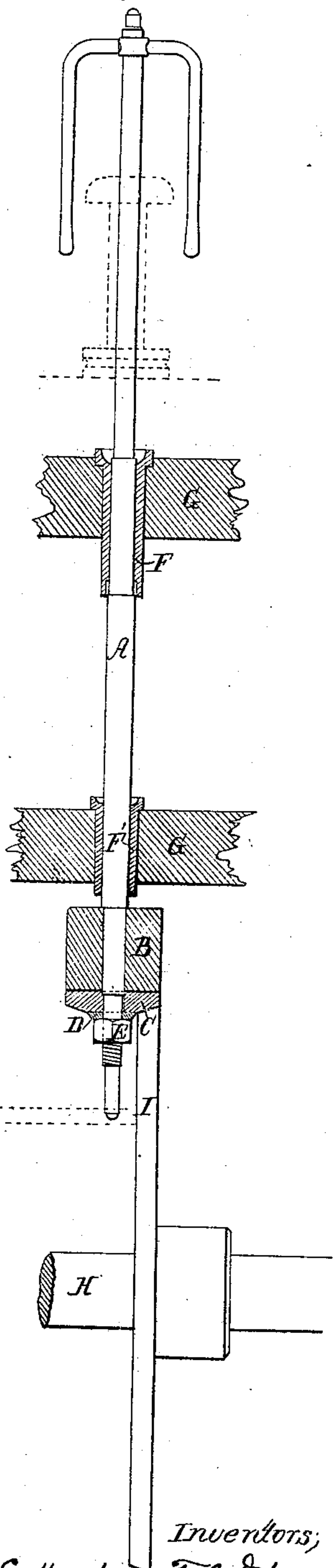
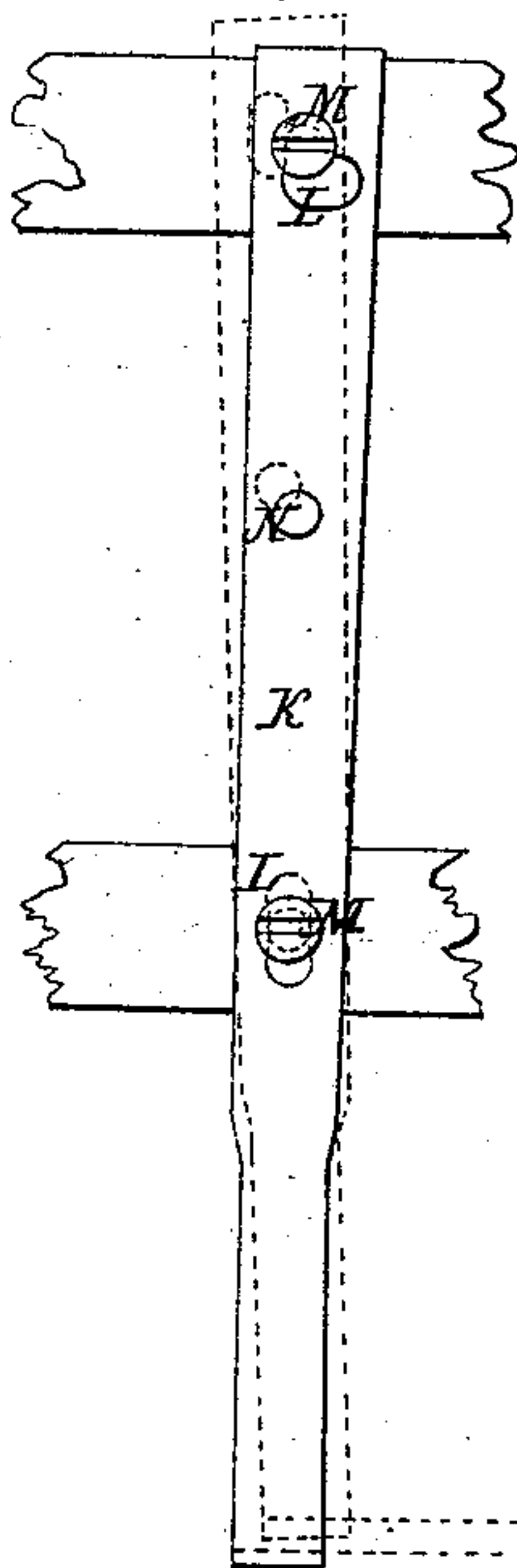


Fig. 3.



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EUGÈNE HURET AND FRANÇOIS L. DE BRUYN, OF CONDETTE, PAS-DE-CALAIS, FRANCE.

Letters Patent No. 92,830, dated July 20, 1869.

IMPROVEMENT IN DEVICE FOR STOPPING THE REVOLUTION OF SPINDLES IN SPINNING-MACHINES, &c.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, EUGÈNE HURET and FRANÇOIS L. DE BRUYN, of Condette, Pas-de-Calais, Empire of France, have invented certain Improvements in Machinery for Preparing, Spinning, and Doubling Cotton, and other fibrous substances; and we do hereby declare the following to be a full, clear, and exact description of the same.

Our improvements consist of peculiar mechanism, fully described hereafter, by which any one of the spindles of a spinning-machine may be stopped instantaneously, without interfering with the motion of the rest.

In order to enable others skilled in the art to make and use our invention, we will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a transverse sectional view of sufficient of a spinning-machine, to illustrate our improvements;

Figure 2, a longitudinal section of the same; and

Figure 3, a detached view of part of the mechanism.

Similar letters refer to similar parts throughout the several views.

H represents the driving-shaft, and G G, two of the bars of the frame of a spinning-machine, A being one of a number of spindles, arranged to turn and to have a limited sliding motion in sleeves or bearings F and F', which are properly fitted to the said bars G G.

At the upper end of the spindle A is a "flier," of the usual construction, and near its lower end is a disk, C, of compressed leather, or equivalent material, bevelled or conical on the under side, and this disk is confined between a weight, B, and metal washer D, the pressure of the latter against the said disk being regulated by a nut, E, which is adapted to a screw-thread on the spindle.

The lower end of the spindle does not turn in a step, as usual, but is supported by a wheel, I, of metal, upon the bevelled edge of which the bevelled portion of the leather washer C rests, and it should be understood that the driving-shaft is furnished with as many of these wheels I as there are spindles, each of the latter having its own bevelled washer C.

As the weight B causes the washer to bear upon the wheel I with considerable pressure, it follows that when the latter is turned, the spindle will be rapidly rotated; and in order to stop the motion of the said spindle, without interfering with that of the driving-

shaft, all that is necessary is to raise it sufficiently to free its washer from contact with the wheel I.

This raising of the spindle is effected by means of a metal plate or rod, K, which is attached to the bars G of the frame by screws M, passing through slots L L, the lower bent end of this rod being almost in contact with the bottom of the spindle, when the latter is at its lowest point, while on raising the rod, the spindle will also be raised sufficiently to disengage its washer from the wheel I.

The operation of the rod K is clearly shown in fig. 3, where it will also be observed, that owing to the shape of its upper slot L, the said rod may be prevented from falling from the position to which it is raised.

Although we have hitherto referred to the washer as being of leather, in contact with the bevelled edge of a metal disk, both parts may be of leather, or other hard and insonorous substance. Caoutchouc, hardened wood, lead, or gutta-percha may be used for the disk on the spindle, the other being of iron, or both may be made of any of these different substances.

The important object is to have a material or composition which is hard, compact, homogeneous, and susceptible of being turned to a proper form.

By driving the spindles as above described, a very rapid and noiseless motion is attained, while the effect is as precise as that resulting from the most perfect cog-gearing.

We would also observe that our friction-gear and disconnecting-device are applicable to preparatory machines, to continuous or self-acting spinning-frames, and also to twisting-frames in general and to the treatment of different fibrous substances.

We claim as our invention, and desire to secure by Letters Patent—

The combination of the driving-mechanism herein described, the spindles A, and the plates K, provided with slots L L, and bent ends, all constructed and arranged for adjustment on the frame of a spinning-machine, as specified.

In witness whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.

E. HURET.
F. DE BRUYN.

Witnesses:

E. RICHARDS,
F. OLCOTT.