

No. 789,997.

PATENTED MAY 16, 1905.

B. F. McGUINNESS.
LOOM DOBBY MECHANISM.
APPLICATION FILED JULY 16, 1904.

Fig. 3.

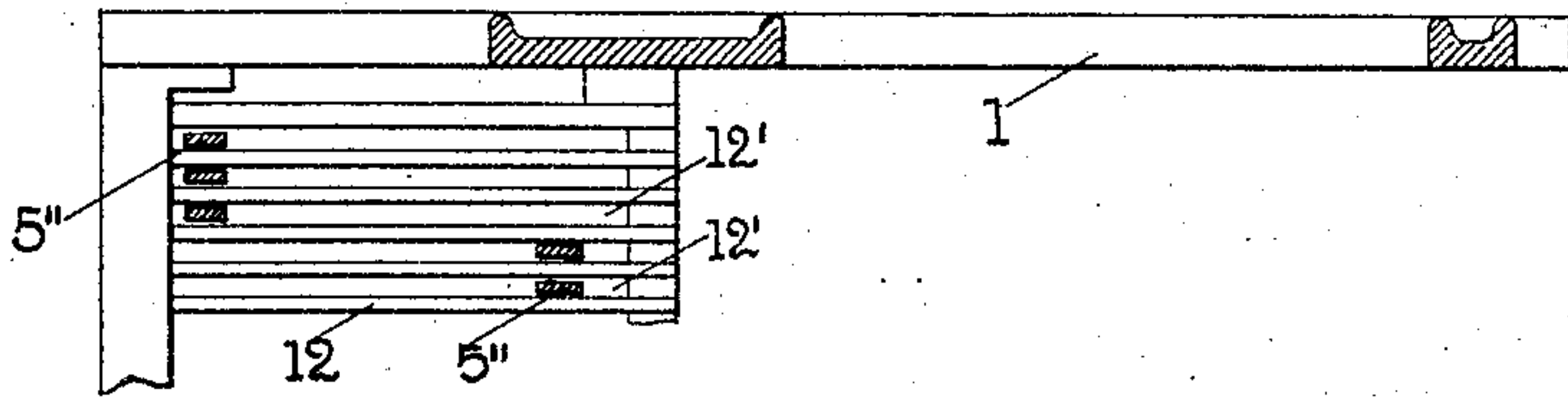


Fig. 2.

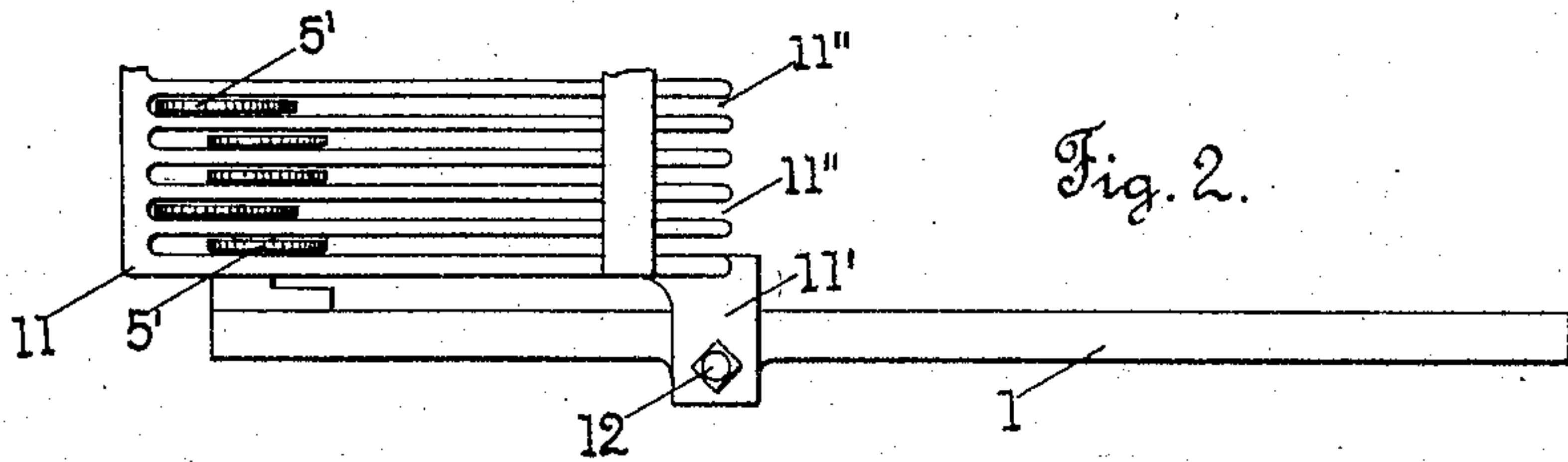
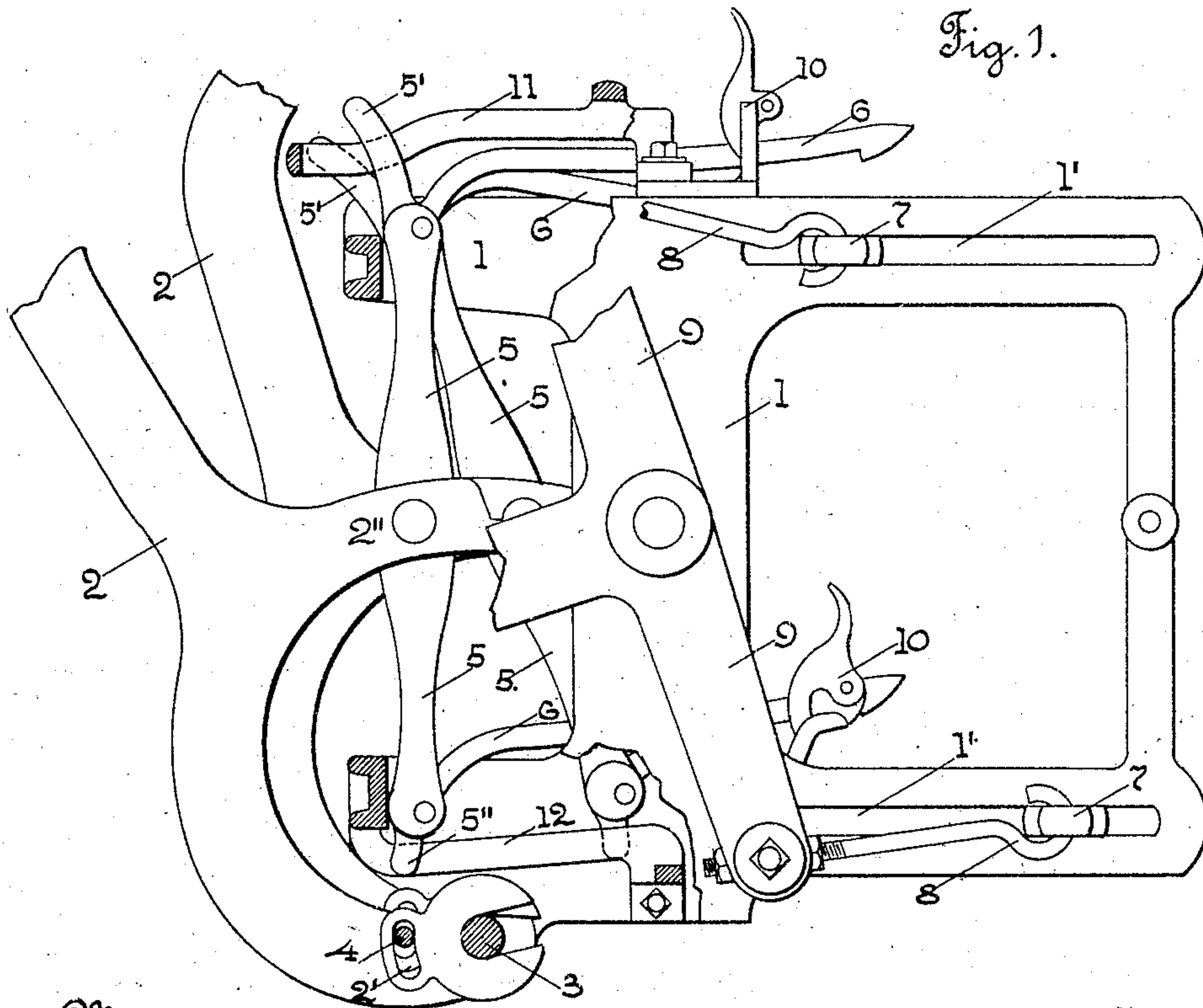


Fig. 1.



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BENJAMIN F. MCGUINNESS, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO CROMPTON & KNOWLES LOOM WORKS, A CORPORATION OF MASSACHUSETTS.

LOOM DOBBY MECHANISM.

SPECIFICATION forming part of Letters Patent No. 789,997, dated May 16, 1905.

Application filed July 16, 1904. Serial No. 216,773.

To all whom it may concern:

Be it known that I, BENJAMIN F. MCGUINNESS, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Loom Dobby Mechanism, of which the following is a specification.

My invention relates to a loom dobby mechanism, and more particularly to supplemental parts or attachments to be combined with and used on a dobby.

The object of my invention is to improve upon the ordinary construction of a dobby.

In the ordinary construction of a dobby guides are provided for the hooks which engage with and are operated by the reciprocating lifter-bars. These guides serve to keep the hooks in their proper position; but no provision is made for guiding either the upper or lower end or both the upper and lower ends of the levers to which the hooks are attached and which levers are centrally pivoted on the harness-jacks in the usual way. The hook-levers are consequently free to have a lateral movement at their upper and lower ends and to rub against each other, thus producing friction and causing the parts to work harder and not give so good results. In my improvements I provide a guide or guide-slots, which I term a "grate," preferably for both the upper and lower ends of the hook-levers, and I form on each end of the hook-levers or attach thereto an extension which extends in the guide-slots of the grate and acts to guide the hook-lever and prevent any lateral movement thereof at its ends and any contact with the adjoining lever.

I have shown in the drawing a detached portion of a dobby of the type shown and described in my United States Letters Patent No. 752,352, with my improvements applied thereto.

It will be understood that my improvements may be applied to any dobby.

Referring to the drawings, Figure 1 is a front view and partial section of a dobby-frame with some moving parts thereon, some of which are broken away, showing my improvements applied thereto. Fig. 2 is a detached

plan view of one end of the top guiding-grate for the hook-levers; and Fig. 3 is a detached sectional view through the frame, showing a plan view of one end of the bottom guiding-grate for the hook-levers.

In the accompanying drawings, 1 is the dobby-frame, on which are supported the several parts of the dobby mechanism in the well-known manner.

2 represents the harness-jacks, pivotally supported at their lower ends on the transverse rod 3 and having a slot 2' therein, through which extends a transverse rod 4 to limit the pivotal motion of the jacks 2 in the usual way.

On the forwardly-extending projection 2' on the jacks 2 are centrally pivoted the hook-levers 5, and to the upper and lower ends of each lever 5 is pivotally attached the outer end of a hook 6 in the ordinary way. The hooks 6 are raised by wires (not shown) to disengage their hooked ends from the lifter-bars 7, which extend in slots 1' in the frame 1 and have a reciprocating movement communicated thereto through links 8 by the rocking lever 9 to move the hooks 6, the hook-levers 5, and the jacks 2, all in the usual and well-known manner. The hooked ends of the hooks 6 extend through guides or grates 10, secured to the frame 1 and which in this instance correspond to the guides or grates shown and described in my said Patent No. 752,352.

I will now describe my improvements.

A guide frame or grate 11 extends transversely across the dobby-frame 1 at the outer upper end thereof and in this instance has a side extension or ear 11' at its inner edge on each end thereof, which is secured by a bolt 12 to the top of the frame 1. (See Fig. 2.) The grate 11 has a series of elongated openings 11" therethrough, which form guides for the upwardly-extending projections 5' on the upper ends of the hook-levers 5. The projections 5' are in this instance made integral with the levers 5 and extend up through the openings 11" in the grate 11, which act to guide and hold in position the upper ends of the levers 5 and prevent any lateral movement thereof. I preferably provide a second

guide frame or grate 12, having a series of elongated openings 12' therethrough for the lower ends of the hook-levers 5. The grate 12 extends transversely through the dobby-frame 1 at the lower end of the hook-levers 5 (see Fig. 1) and is secured to the frame 1. The hook-levers 5 have downwardly-extending projections 5'' on their lower ends, in this instance made integral, which extend through the elongated openings 12' in the grate 12. The openings 12' guide the lower ends of the levers 5 and prevent any lateral movement thereof.

It will be seen that the upper grate 11 acts to guide and prevent any lateral movement of the upper ends of the hook-levers 5 or any contact of the hook-levers with each other without interfering in any way with the free pivotal movement of said levers. The lower grate 12 has the same action on the lower ends of the hook-levers 5.

It will be understood that the details of construction of my improvements may be varied, if desired.

I prefer to use two grates 11 and 12 or their equivalent, one for the upper and the other for the lower ends of the hook-levers 5; but only one grate or its equivalent may

be used for either the upper or the lower ends of said levers.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a dobby, the combination of the harness-jacks, the hook-levers pivotally mounted thereon, said hook-levers having projections extending in substantial prolongation thereof, and a guide having elongated openings to receive the said projections.

2. In a dobby, the combination of the harness-jacks, the hook-levers pivotally mounted thereon, said hook-levers having projections extending beyond the upper ends thereof, and a substantially horizontal guide having elongated openings into which said projections extend.

3. In a dobby, the combination of the harness-jacks, the hook-levers, and the hooks connected thereto, said hook-levers having projections extending beyond the connection of the hooks therewith, and a guide for engaging said projections.

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