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Patented Oct. 22, 1901.

G. H. DUNSFORD.

GUARD BOARD FOR ROLLS OF PAPER MAKING MACHINES.

(Application filed Dec. 14, 1899.)

(No Model.)

Fig. 1.

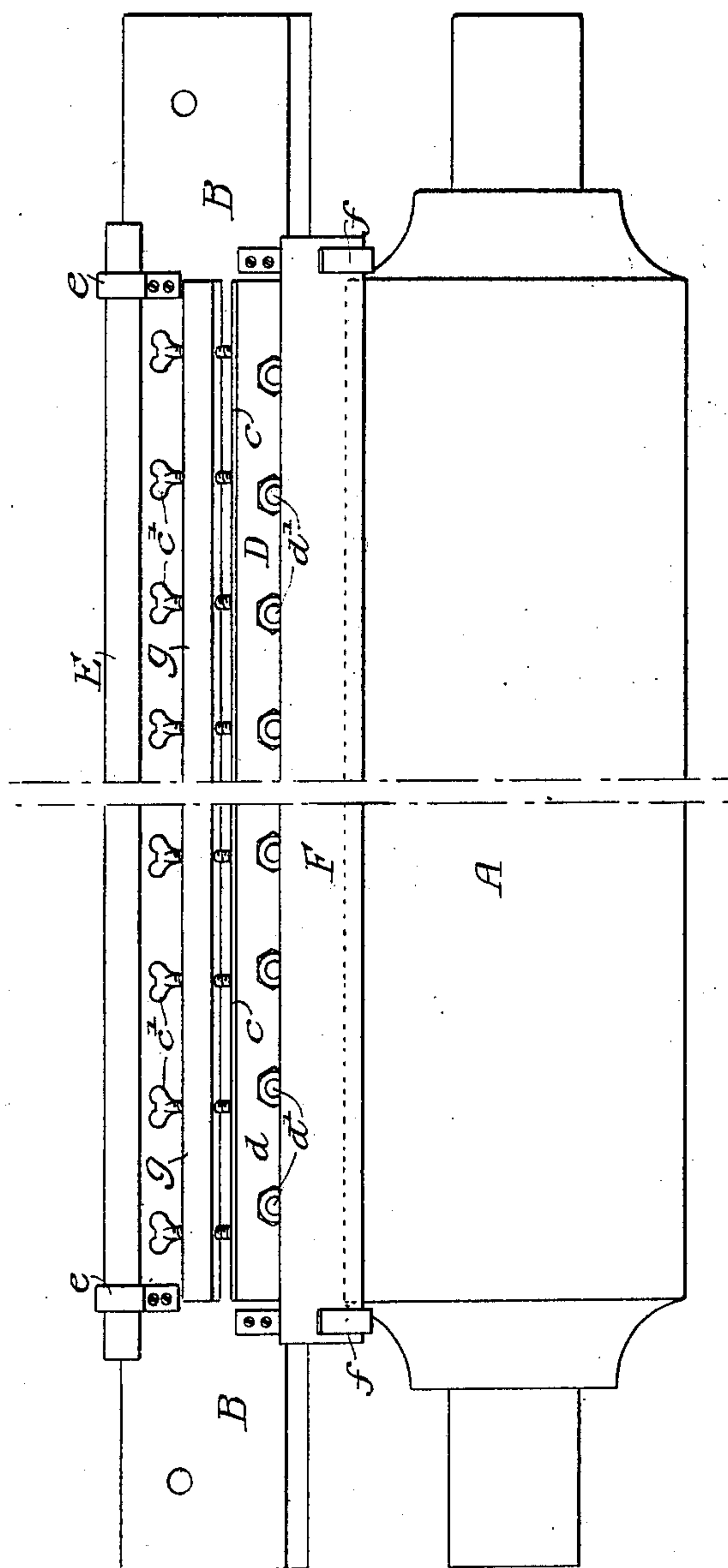
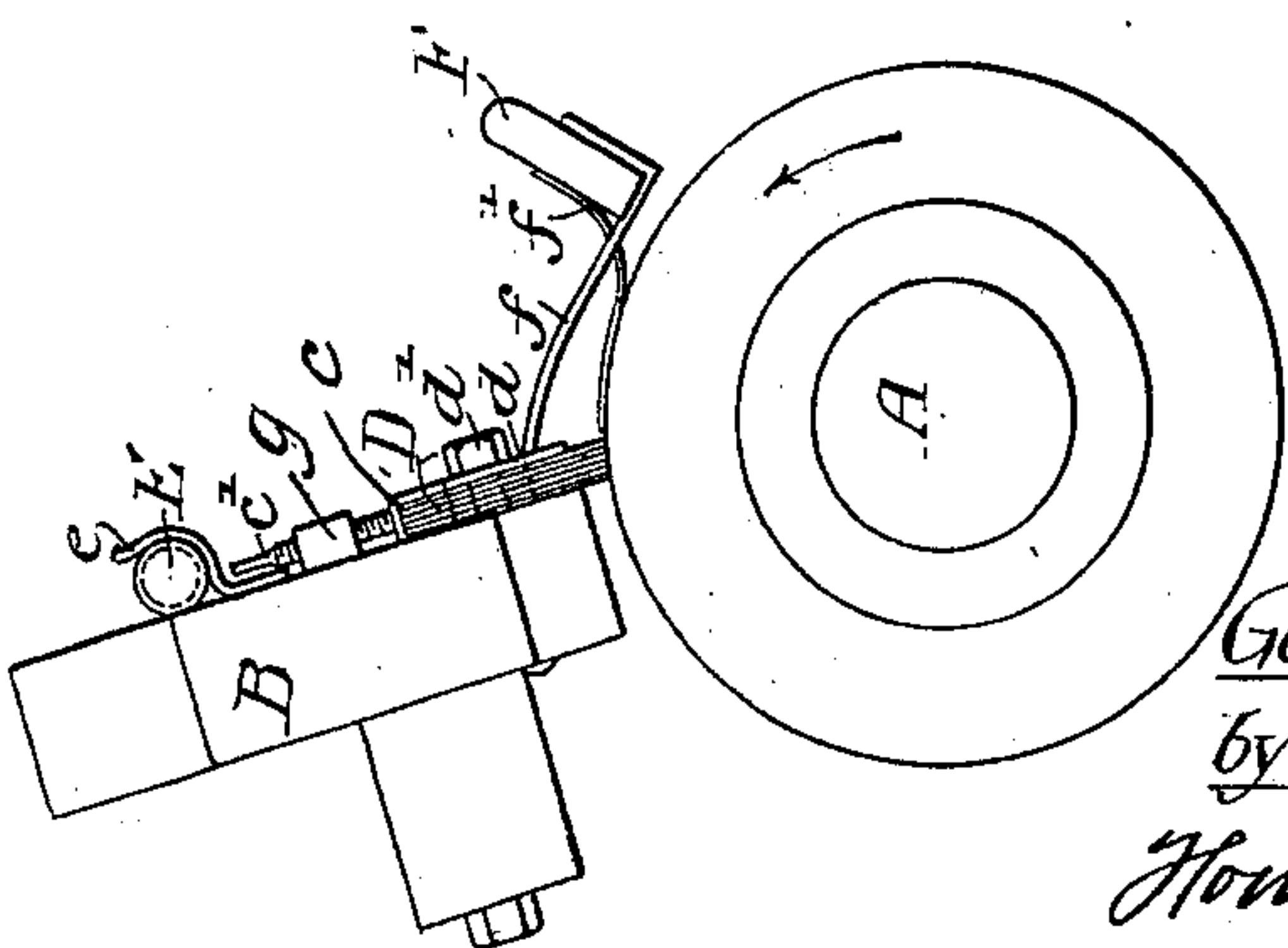


Fig. 2.



Witnesses:-

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GEORGE H. DUNSFORD, OF WILLIAM PENN, PENNSYLVANIA.

GUARD-BOARD FOR ROLLS OF PAPER-MAKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 684,924, dated October 22, 1901.

Application filed December 14, 1899. Serial No. 740,280. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. DUNSFORD, a citizen of the United States, and a resident of William Penn, Montgomery county, Pennsylvania, have invented certain Improvements in Guard-Boards for Rolls of Paper-Making and other Machines, of which the following is a specification.

My invention relates to certain improvements in guard-boards for cleaning the rolls of paper-making and other machines. The object of my invention is to thoroughly cleanse the roll by using a flexible guard-board, as fully described hereinafter.

My invention can be either applied to the press-roll, couch-roll, or breast-roll of a paper-making machine or to the rolls of any machines in which it is necessary to keep the rolls clean.

In the accompanying drawings, Figure 1 is a front view illustrating a roll and my improved guard-board in position, and Fig. 2 is an end view of Fig. 1.

I have dispensed with the frame of the machine, as it will only confuse the drawings, and have simply shown the roll and the support for the guard. The rolls, of course, may be adapted to any suitable bearings, and the support for the guard may be attached in any manner.

A is the roll, in the present instance a couch-roll, of a paper-making machine.

B is a support secured at each end to the frame of the machine. Carried by the support B is a flexible guard-board D, made of any suitable rubber composition, and the edge of this guard-board rests upon the upper surface of the roll A in the present instance, as shown.

d is a plate clamped to the face of the guard-board by bolts d', arranged at intervals, and c is a plate extending across the top of the guard-board. Passing through a projection I from the support B and bearing upon this plate are set-screws c' for regulating the pressure of the guard-board upon the roll. I have provided a series of these set-screws, so that the guard-board can be adjusted at any point throughout its length.

Mounted above the guard-board on the support B is a shower-pipe E, supported by brack-

ets e, and in front of the guard-board is a support F, carried by brackets f, and on this support is the felt wiper f', which bears upon the surface of the roll A and prevents the water from the shower passing to the rear of the roll.

The bolts d' pass through slotted openings in the plate d and in the flexible guard-board D, so that the guard-board can be adjusted by the set-screws.

It will be understood that this device may be used on any of the rolls of a paper-making machine or on any machine in which the rolls are to be kept clean—such as starching-rolls, drying-rolls, &c.

I make the flexible guard-board of a composition of rubber and fabric arranged in layers, so that it will be stiff enough to hold its place, and yet will not wear away the covering of the roll. It is made in such form that it can be readily applied, and need not necessarily be attached in the manner shown in the drawings.

By using the material above described I can reduce the width of the guard considerably, thus reducing the friction upon the roll, making a much more satisfactory guard than heretofore. When used in connection with a press-roll, it takes the place of the ordinary metal doctor-blade, which in many instances scores the roll.

I claim as my invention—

1. The combination in a paper-making or other machine, of a roll, a support, a projection on said support, set-screws passing through said projection, a guard-board having one side bearing against the support and an edge bearing on the roll, a plate extending along the other edge of said guard-board constructed to be pressed upon by said set-screws, and bolts passing through the guard-board and adjustably holding it to the support, substantially as described.

2. The combination in a paper-making or other machine, of a roll, a support, a flexible guard-board carried by the support, said guard-board consisting of strips of dissimilar materials compressed into a solid mass, the edge of the guard-board resting upon the roll, a plate having slots in it on one side of the guard-board, bolts in said slots extending through

slots in the guard-board into said support, with means for adjusting the said guard-board to the roll when the said bolts are loosened, substantially as described.

- 5 3. The combination in a paper-making or other machine, of a roll and a guard-board mounted in contact with the roll, said guard-board consisting of flexible strips of dissimilar materials compressed into a solid mass,

the edge of the same bearing upon the roll, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE H. DUNSFORD.

Witnesses:

WILL. A. BARR,
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