No. 745,377. PATENTED DEC. 1, 1903.

H. PARKER.

BELT GUIDE.

APPLICATION FILED JUNE 21, 1902.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1

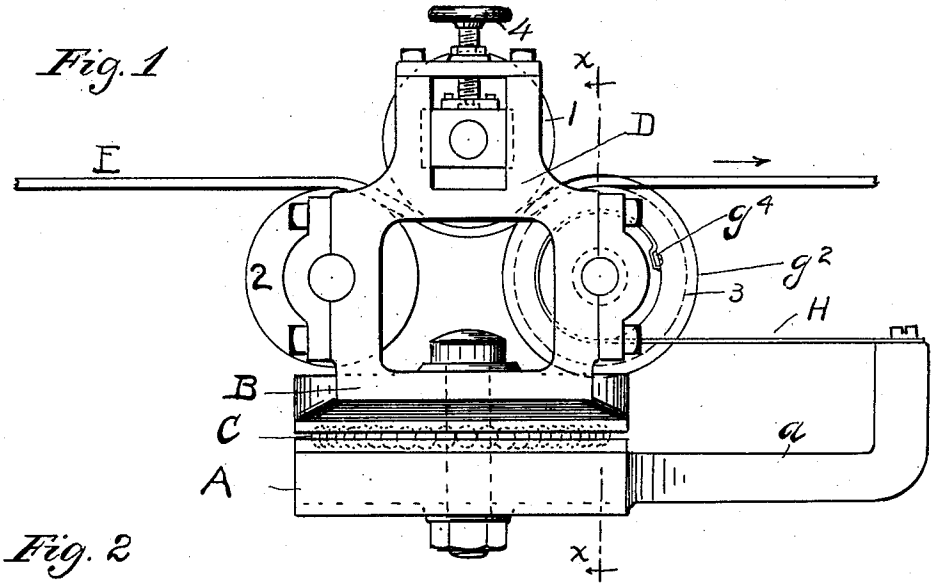


Fig. 2

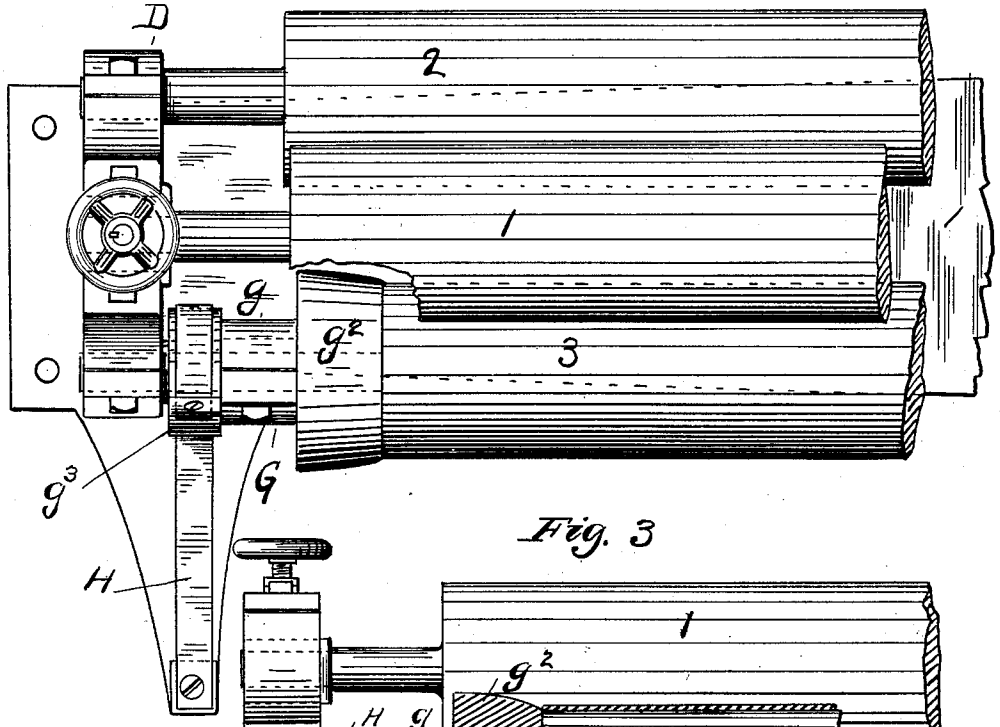
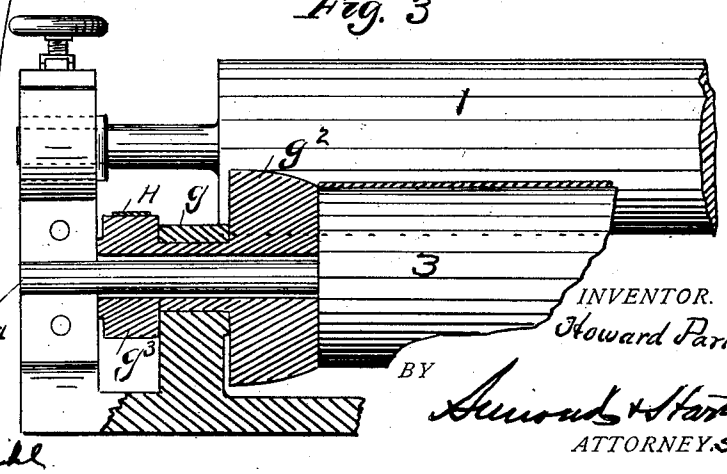


Fig. 3



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INVENTOR.

Howard Parker

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Howard & Hart

ATTORNEYS

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NO MODEL. 3 SHEETS—SHEET 2.

Fig. 4

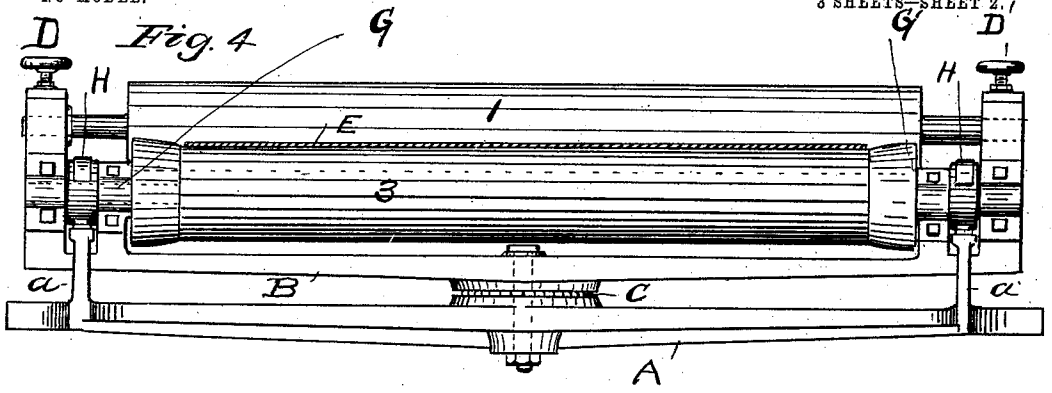


Fig. 5

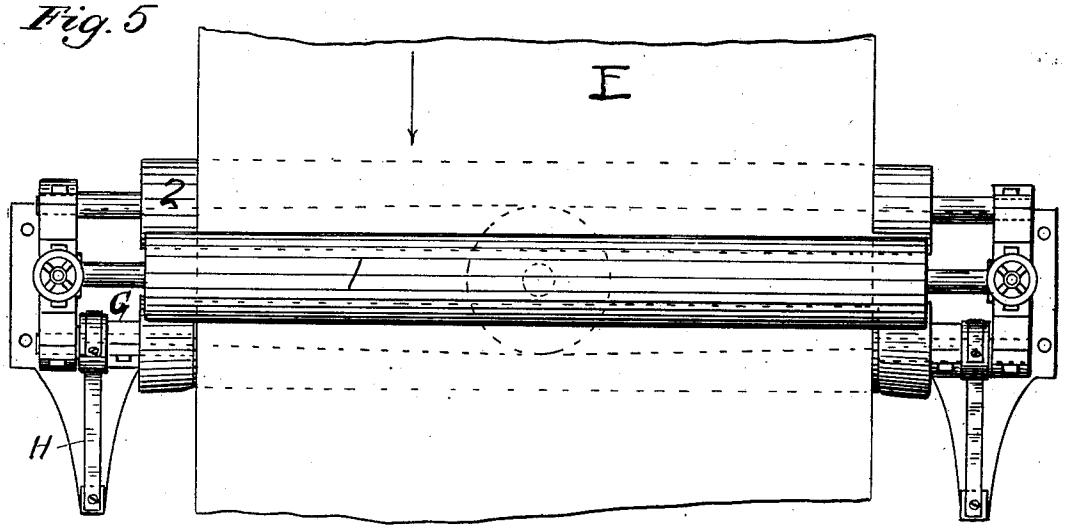
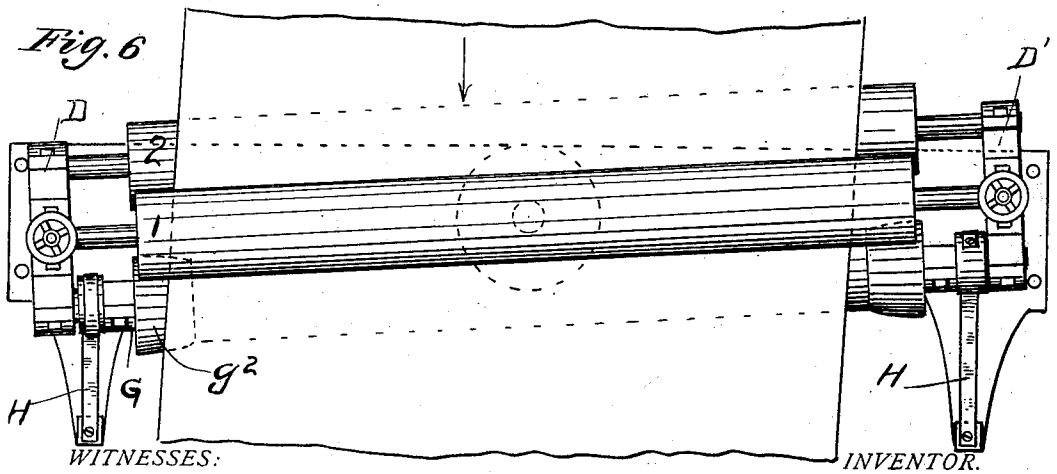


Fig. 6



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No. 745,377. PATENTED DEC. 1, 1903.

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BELT GUIDE.

APPLICATION FILED JUNE 21, 1902.

NO MODEL. 3 SHEETS—SHEET 3.

Fig. 7

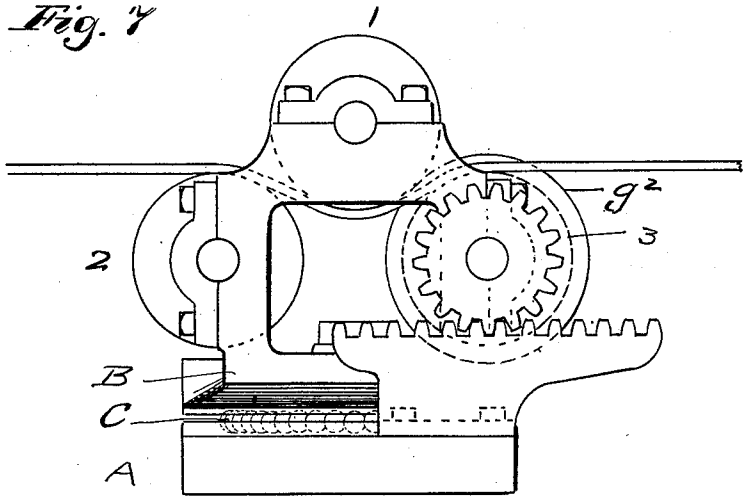
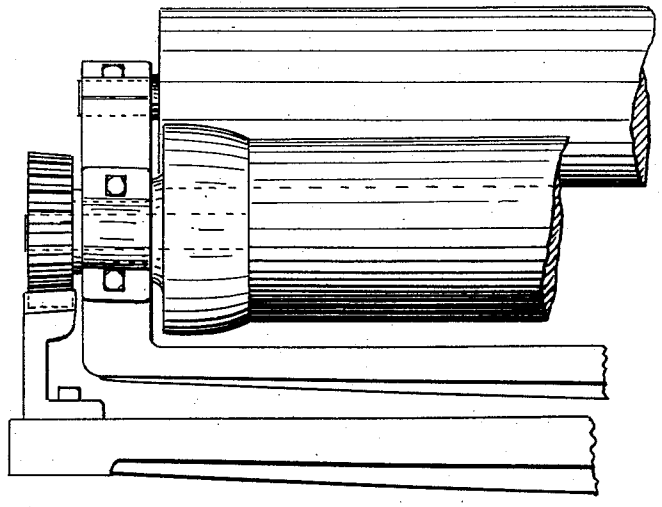


Fig. 8



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No. 745,377. Patented December 1, 1903.

UNITED STATES PATENT OFFICE.

HOWARD PARKER, OF NASHUA, NEW HAMPSHIRE, ASSIGNOR TO IMPROVED PAPER MACHINERY COMPANY, OF CASTINE, MAINE, AND NASHUA, NEW HAMPSHIRE, A CORPORATION OF MAINE.

BELT-GUIDE.

SPECIFICATION forming part of Letters Patent No. 745,377, dated December 1, 1903.

Application filed June 21, 1902. Serial No. 112,630. (No model.)

To all whom it may concern:

Be it known that I, HOWARD PARKER, a citizen of the United States of America, residing at Nashua, in the county of Hillsboro and State of New Hampshire, have invented certain new and useful Improvements in Belt-Guides, of which the following is a specification.

The object of the invention is to provide a device of the class specified having features of novelty and advantage.

Figure 1 is a side elevation of the device. Fig. 2 is a plan view. Fig. 3 is a sectional view on the line $x\,x$ of Fig. 1. Fig. 4 is a front view. Fig. 5 is a plan view showing the belt in place and the parts in their normal positions. Fig. 6 is a plan view showing the belt in place and the parts out of their normal positions. Figs. 7 and 8 are views of a modification of the invention.

This belt-guide is applicable to machines of many different kinds wherein such a device can be advantageously used, and particularly is it of use in paper-making machinery where endless belts of considerable length are used, and the embodiment of my invention herein shown and described is one applicable to paper-making machines.

In the drawings, A denotes a stationary base, which may be a part of the frame of the machine.

B denotes a frame pivotally supported on the stationary frame A and mounted on an antifrictional bearing C in order that it may move easily. The frame B has a column at each end, in which are journaled the rolls 1 2 3. In this particular device the belt E passes underneath the roll 1 and over the rolls 2 3. One of the rolls, as the one designated by the numeral 3 in the drawings, is provided at each end with sleeves G G′, mounted in suitable bearings g g'. One end of these sleeves is of frusto-conical form g^2, its smaller diameter being of the same diameter as the roll and abutting against the end thereof. At the opposite end of each sleeve is a collar g^3. The axis 3^a of the roll 3 passes through the sleeve g, permitting the roll 3 to rotate independently of the sleeves. Arms a project from the frame A at each side, and the metal ribbon H is secured at one end to these arms and passes underneath and partly around the collar g^3, having its end secured thereto, as at g^4. The bearings of the upper roll 1 are arranged to slide on guides and may be moved up or down by the hand-wheel 4 to change the relative position of the roll 1 with the rolls 2 3 as desired.

Fig. 4 shows the complete device in front view, including the stationary frame A, the rotatable frame B, the bearing C, the arms a, and the sleeves G and the connection between the sleeves and the arms a by the ribbons H.

Fig. 5 shows the parts in plan view and in their normal positions.

Fig. 6 illustrates the relative positions of the parts when the belt shifts its position and the operation of the device to return the belt. As soon as it shifts to one side or the other it moves onto the conical end of one of the sleeves, as G, and imparts motion to the sleeve. This winds the metallic ribbon upon the collar g^3 and draws the frame B around to the position shown in Fig. 6. This movement of the frame B causes the belt to be pinched between the roll 1 and the conical end g^2 of the sleeve G, which forces the belt back to its normal position and permits the frame B to resume its normal position.

The modification shown in Figs. 7 and 8 operates in substantially the same manner as the device shown in Figs. 1 to 6, inclusive, with the exception that in place of the metallic ribbon H there is provided a rack and pinion at each end of the base A and the frame B, respectively.

It is evident that the details of construction of this device may be changed at will without departing from the spirit of my invention, and I wish to include herein any and all such modifications.

I claim as my invention—

1. In a machine of the class specified a stationary base, a frame pivotally mounted thereon, two or more rolls suitably supported in the frame, a belt passing between the rolls, normally idle connections between the frame and the base, and means positively actuated

by one of the rolls and the belt to cause said connections to rotate the frame upon its pivot, substantially as described.

2. In a device of the class specified a stationary base, a frame pivotally mounted thereon, rolls carried by said frame, sleeves located at the ends of one of the rolls and in operative relation with the other roll, said sleeves being rotatable independent of the first-named roll, the belt, and connections between said sleeves and said stationary base, as and for the purposes specified.

3. In a device of the class specified a stationary base, a frame pivotally mounted thereon, and two or more rolls suitably mounted in said frame, a sleeve arranged at each end of one of the rolls and rotatable independently thereof, said sleeve being arranged in operative relation to the other roll, a collar on said sleeve, and a band or ribbon connecting said sleeve with the stationary base, all substantially as described.

4. In a device of the class specified in combination a stationary base; a frame pivotally mounted thereon; two rolls suitably mounted in said frame, one roll overlapping the other at each end; a belt passing between the rolls; a sleeve mounted at each end of the shorter roll, rotatable independent thereof, and arranged in operative relation to the longer roll; and metallic ribbons or bands connecting said sleeves with the stationary base; operating substantially as described and for the purposes set forth.

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

HOWARD PARKER.

Witnesses:

B. A. PEASE,

L. H. OTIS.