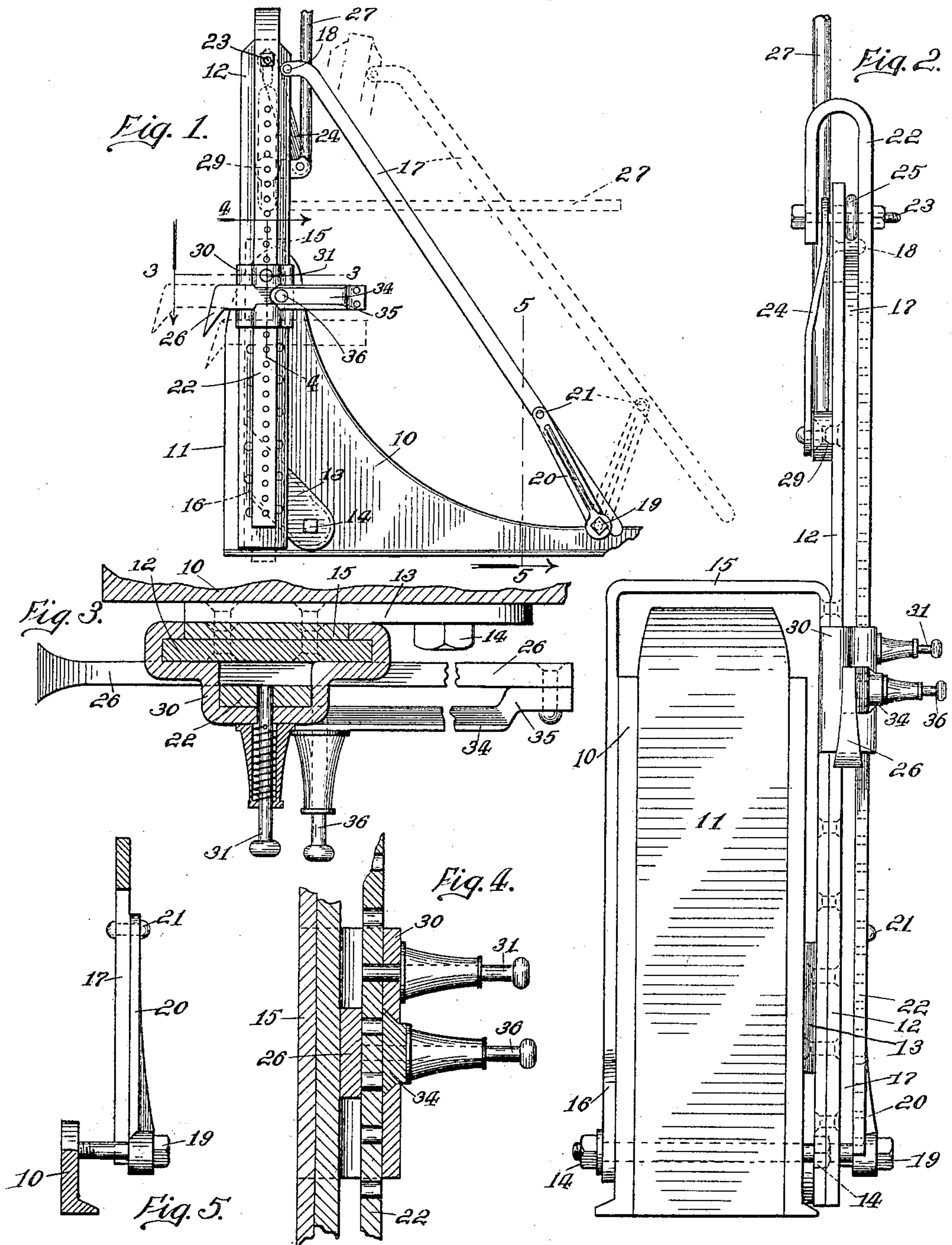


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M. S. EBY.
DOG FOR SAWMILL CARRIAGES.

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UNITED STATES PATENT OFFICE.

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DOG FOR SAWMILL-CARRIAGES.

No. 813,143.

Specification of Letters Patent.

Patented Feb. 20, 1906.

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To all whom it may concern:

Be it known that I, MAURICE S. EBY, a citizen of the United States, and a resident of New Orleans, parish of Orleans, and State of Louisiana, have invented certain new and useful Improvements in Dogs for Sawmill-Carriages, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to the device used on sawmill-carriages for holding the log against the knee and known as the "dog." As ordinarily constructed it is mounted upon or within the knee and moves as an integral part thereof during the operation of setting.

More specifically, the invention relates to a dog of the receding type which may be swung to the rear when not in use, and particularly to one which will draw the log snugly against the face of the knee after it has been left near thereto by the pusher.

The object of the invention is to provide a dog of the type described which will be of durable and compact construction and in which the knife and the back brace are in a plane parallel to the resistance in order to give a direct thrust and to prevent a winding strain when the dog is forced into the log. This object is obtained in the construction and arrangement of parts hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation showing the invention attached to one of the knees of a sawmill-carriage. Fig. 2 is a front elevation of the same. Figs. 3, 4, and 5 are detail sections on the lines 3 3, 4 4, and 5 5, respectively, of Fig. 1. Figs. 2 and 5 are drawn to a larger scale than Fig. 1, and Figs. 3 and 4 are drawn to a still larger scale.

A sawmill-carriage knee is shown at 10, its front face being represented at 11. The dogging mechanism is usually secured to the knee, and in the present instance this is accomplished by means of a yoke-strap 15, (preferably fitting closely over the knee, so as to form a lateral brace for the dogging mechanism to resist the racking strains caused by the end thrust of the log when the carriage is suddenly reversed,) having its ends pivoted on a pin 14, passing through the base of the knee, the yoke ends being inclined backwardly, as shown at 13 and 16, so that the said pivot-pin is back of the line of the body

of the frame. The backwardly-inclined portions of the lower ends of the yoke may be integral with the body portion thereof, as shown at 16, or made separate and riveted to the body portion, as shown at 13.

An upright bar 12, which is preferably made very strong, as the stiffness of the mechanism depends largely upon its strength, is rigidly fixed to one side member of the yoke-strap 15 and projects upwardly above its arch. A two-part brace has one of its members 17 pivoted at 18 to the upper end of the arm 12 and its other member 20 pivoted at 19 to the rearward end of the foot portion of the knee 10, the two members 17 and 20 being pivotally united at 21. The upper member 17 of this brace is prolonged downwardly, so that its lower end will bear against the pivot 19 when the two members are brought approximately into alinement, thus preventing the joint of the brace from breaking forwardly, yet bringing the brace so nearly into line that it will support the upright bar 12 and its yoke-strap against considerable pressure.

A perforated bar 22 has a bearing against the outer face of the upright bar 12 and is held, its upper end being overturned or doubled upon itself, so as to fold over the opposite side of such upright bar. A pin 23 passes through both legs of the perforated bar and through a longitudinal slot in the upper end of the upright bar 12, a washer 25, encircling the pin, being employed to space the two bars apart. The perforated bar is further held in engagement with the arm by means of a clip 30, having its ends folded together and in sliding engagement with the edges and front and rear faces of the upright bar 12, such clip being bowed outwardly to inclose the perforated bar 22.

The knife bar or dog proper, 26, is carried by the clip 30, which is apertured to receive it, and lies between and in sliding engagement with the slide-bar 22 and upright bar 12, so that its cutting edge projects forwardly from the face of the knee. This position of the knife-bar gives it a very firm support and contributes largely to the strength and durability of the mechanism. The knife is limited in its forward movement by a yoke-arm 34, riveted to its rear end and having an offset, as shown at 35, so as to inclose the perforated bar 22, the clip 30 being recessed across its

outer face to receive the yoke-arm. A spring-pin 36, playing through a suitable socket-block attached to the forward end of the yoke-arm 34, may be thrown inwardly back of the
 5 perforated bar 22, so as to hold the knife-bar 26 in its retracted position, as shown in Fig. 1, the knife being allowed to project forwardly to the upper dotted-line position in Fig. 1, when the pin is withdrawn.

10 The clip 30, together with the knife-bar or dog proper, 26, and its yoke-arm 34, form the sliding head of the mechanism, which may be secured at any adjusted position from top to bottom of the perforated bar 22, by means of
 15 a spring-pin 31, secured to the clip 30 and designed to be received by any one of a series of apertures in the perforated bar.

The mechanism is controlled by a hand-lever 27, pivoted at 29 to the upright bar 12 and
 20 connected by means of a link 24 to the pin 23, uniting the perforated bar 22 with the upright bar 12. The knife having been adjusted forwardly for dogging a log or in its receded position if to engage a cant, the lever 27 is thrown
 25 downwardly, thus sliding the bar 22 down, which carries with it the sliding head and forces the knife into the log or cant, carrying these parts to the lower dotted-line position of Fig. 1. Further pressure upon the lever
 30 27 will break the joint 21 of the brace 17 20 and tilt the dogging mechanism backwardly on the pivot 14, as indicated by dotted lines in Fig. 1, thus drawing the log or cant firmly against the face 11 of the knee, the bar 22 and
 35 the dog and its appurtenances continuing to move downwardly relatively as to the arm 12 and forcing the carrying-frame backwardly by a cam action between these relatively adjustable parts. This action is facilitated by
 40 the disposition of the pivot-pin 14 back of the line of the frame of the dogging mechanism.

I claim as my invention—

1. In a sawmill-carriage dogging mechan-

ism, in combination, a knee, a yieldingy-braced dogging-frame pivoted to the knee, its
 45 pivot being back of the line of its face.

2. In a sawmill-carriage dogging mechanism, in combination, a knee, a dogging-frame pivoted to the knee, a jointed brace pivoted to the knee and to the dogging-frame, such
 50 brace being stopped from bringing its joint into line with its pivots.

3. In a sawmill-carriage dogging mechanism, in combination, a knee, a dogging-frame pivoted to the knee, its pivot being back of
 55 the line of its face, a jointed brace pivoted to the knee and to the dogging-frame, such brace being stopped from bringing its joint into line with its pivot.

4. In a sawmill-carriage dogging mechanism, in combination, a knee, a swinging frame pivoted to the base of the knee, its pivot being back of the line of its face, a dog-carrying bar in sliding engagement with the frame, a
 60 lever pivoted to the frame and to the bar, and a jointed brace pivoted to the frame and to the knee, such brace flexing backwardly and being stopped against bringing its joint into line with its end pivots.

5. In a sawmill-carriage dogging mechanism, in combination, a knee, a swinging frame pivoted to the base of the knee, a dog carried by the frame, and a jointed brace in the plane
 70 of the dog, pivoted to the frame and to the knee.

6. In a sawmill-carriage dogging mechanism, in combination, a knee, a dogging-frame pivoted to the side of the knee, and a yoke-strap fitting over the knee and having one
 75 end thereof secured to the dogging-frame, its free end being pivoted to the knee in line with the frame-pivot.

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