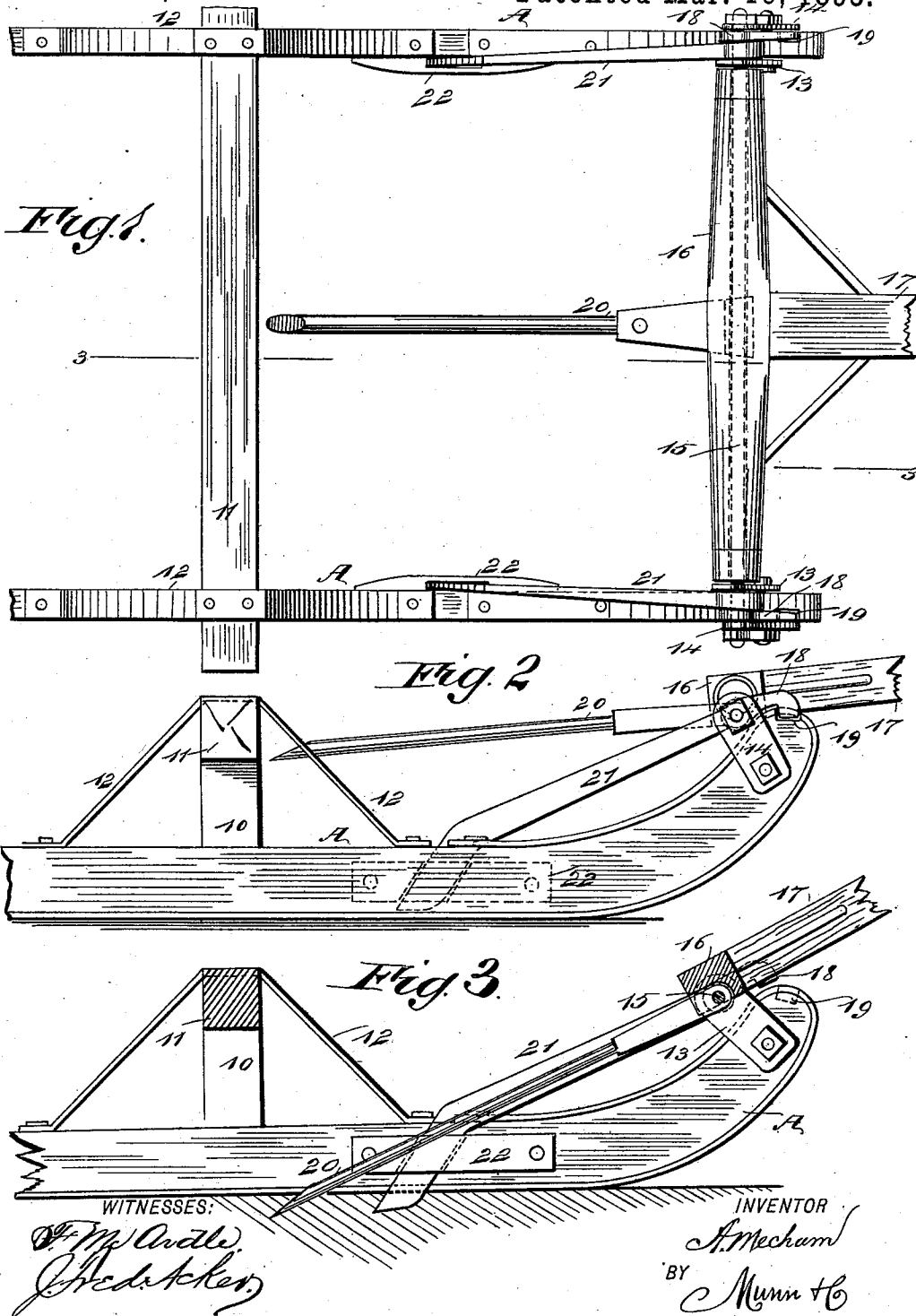


(No Model.)

A. MECHAM.
SLEIGH BRAKE.

No. 536,036.

Patented Mar. 19, 1895.



UNITED STATES PATENT OFFICE.

ADELBERT MECHAM, OF EDINBURG, NORTH DAKOTA.

SLEIGH-BRAKE.

SPECIFICATION forming part of Letters Patent No. 536,036, dated March 19, 1895.

Application filed June 16, 1894. Serial No. 514,769. (No model.)

To all whom it may concern:

Be it known that I, ADELBERT MECHAM, of Edinburg, in the county of Walsh and State of North Dakota, have invented a new and Improved Sleigh-Brake, of which the following is a full, clear, and exact description.

My invention relates to an improvement in sleigh brakes, and it has for its object to provide a brake which will act should the team stop when the sleigh is being drawn up hill, to prevent the sleigh from running backward.

A further object of the invention is to provide a brake which when the sleigh is descending a hill will by the action of the team in holding back, be applied and will control the descent of the sleigh.

A further object of the invention is to provide a means whereby when the team draws forwardly, the brakes will be drawn upward out of contact with the surface over which the sleigh may pass, and furthermore to provide locking devices by means of which the brakes will be held in their upper position when the sleigh is to be backed.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of a portion of a sleigh having the improvement applied. Fig. 2 is a partial side elevation of the sleigh, as shown in Fig. 1, and Fig. 3 is a longitudinal vertical section through the sleigh and brake device, the said section being taken essentially on the line 3—3 of Fig. 1.

In carrying out the invention, the runners A may be of any approved construction and are provided with the usual knees 10, connected by cross bars 11 and supported by braces 12. Links 13 and 14, are pivoted upon the forward end of each runner, one at the inner and the other at the outer side thereof, and the said links extend upward beyond the upper edge of the runner, as shown in Figs. 2 and 3. A shaft 15, is pivoted in the upper ends of the links 13 and 14 of each runner, and upon this shaft the cross head 16 of the

pole 17 is secured, when a pole is used; and when shafts are employed they are connected also with the said shaft.

A crank arm 18, is secured upon the shaft 15, preferably near each outer link in which the shaft is journaled. Each crank arm is provided with a head, and the heads are adapted to enter recesses 19, made in the upper surface of the forward end portions of each runner, and a drag 20, in the nature of a bar, is secured preferably to the central portion of the shaft 15; and when this drag is carried to an upper position, or substantially the position shown in Fig. 2, the shaft 15 will have been rocked sufficiently to carry the heads of the crank arms into the recesses 19 of the runners.

A brake bar 21, is pivoted upon the shaft 15, near each end thereof, preferably between the crank arms 18 and the inner links 13; and these brake bars are carried downward through guides 22, secured to the inner faces of the runners, and the lower ends of the brake bars are adapted to enter the surface over which the sleigh is drawn, being usually beveled at their lower ends.

In the operation of the brake the drag is usually permitted to engage with the surface over which the sleigh is drawn. Consequently, the heads of the crank arms 18 attached to the shaft 15, will be out of engagement with the runners and in the position shown in Fig. 3; and when the team is drawing up hill, the forward draft on the pole or tongue 17 will carry the links 13 and 14 forwardly, and thus draw the brake bars 21 upward and out of engagement with the said surface, as shown in Fig. 2, while the drag may continue to engage with this surface. Consequently, when the team slackens up or stops, the drag will enter the snow or other surface over which the sleigh is drawn, and will prevent the sleigh from sliding back or down the hill.

Whenever the sleigh is traveling down an inclined surface, the action of the team in holding back will throw the shaft 15 rearward, and consequently the links 13 and 14, and the harder the team holds back the more positively the brake bars, which are thrown downward to enter the surface over which the sleigh passes, will be held in engagement with

the said surface, and the moment that the team reaches level ground and draws forward again, the brake bars will be carried up.

5 In the event it is necessary to back the sleigh, the drag 20 is drawn upward by a lever, rope, or other approved means, to the position shown in Fig. 2, and the shaft 15 will be so rocked as to carry the locking crank
10 arms 18 into the recesses 19 of the sleigh runners, and hold the shaft 15 stationary while the team pushes the sleigh rearward.

This device is exceedingly simple, durable and economic in its construction, is applicable to any form of sleigh, and is automatic in
15 its operation.

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

20 1. As an improvement in sled brakes, the combination with the sleigh runners, of a rock shaft journaled in the front ends thereof, brake bars carried thereby and a drag bar pivotally hung on the shaft for movement independent of the brake bars as specified.

25 2. As an improvement in sled brakes, the combination with the runners having lock notches, of a rock shaft journaled in the front ends thereof connected with the draft device,

and having brake bars having guided movement on the runners, and a detent or catch
30 member adapted to drop into locked engagement with the notches in the runners when the shaft is rocked forward and the brake bars raised from an operative position, substantially as shown and described. 35

3. The combination, with sleigh runners, a draft device having rocking connection with the said runners, brake bars carried by the draft device and having guided movement upon the runners, and locking arms likewise
40 carried by the said draft device and adapted for locking engagement with the runners when the brake bars are in an upper position, substantially as shown and described.

4. The combination, with sleigh runners, 45 and a pole or shaft having pivotal and rocking engagement with the runners, of a drag carried by the draft device, brake bars operated from said draft device, and locking arms carried by the drag, said arms being adapted
50 to enter keepers or recesses located upon the runners, as and for the purpose set forth.

ADELBERT MECHAM.

Witnesses:

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