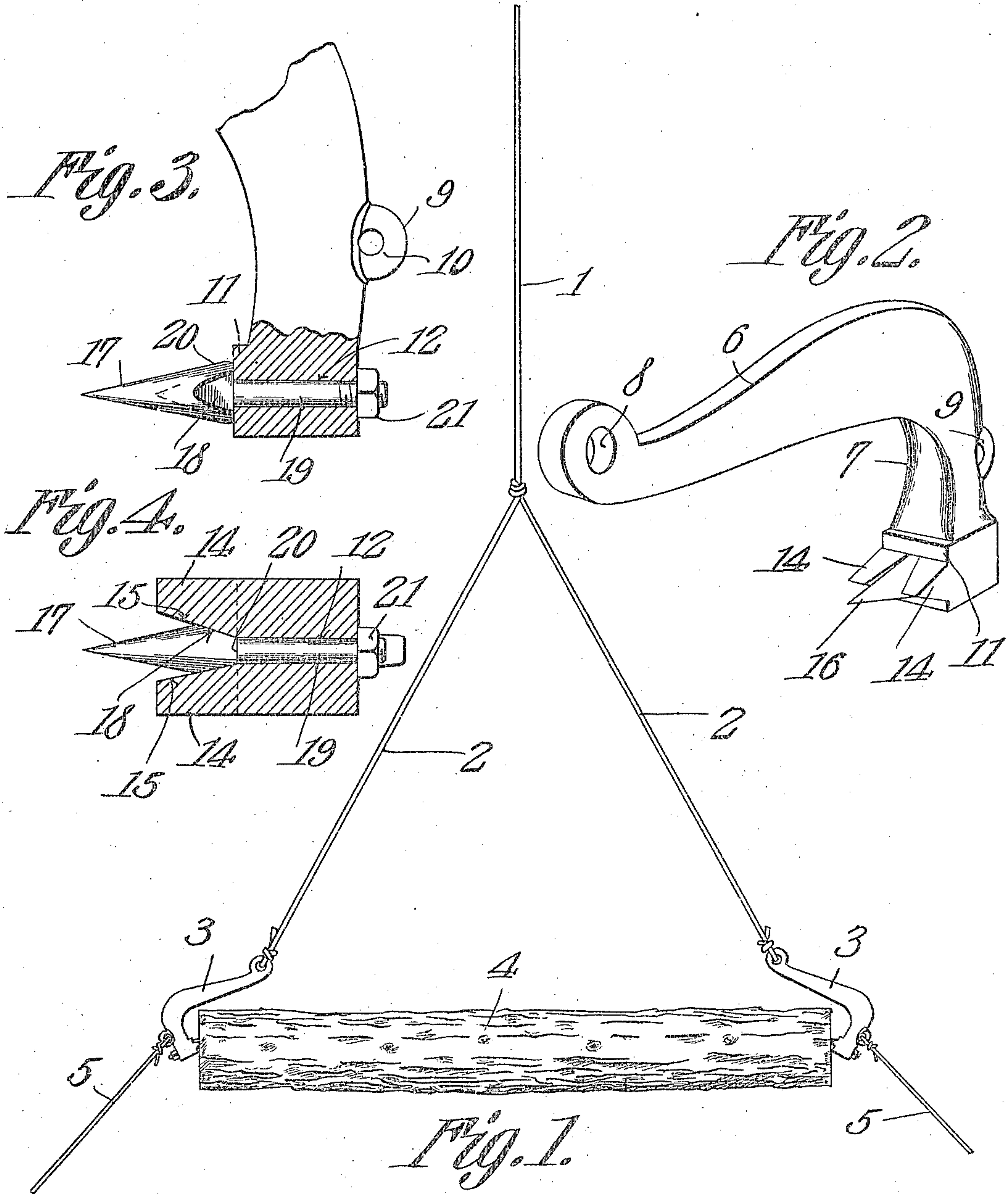


M. E. SPEARS.
LOG HOOK.
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UNITED STATES PATENT OFFICE.

MATHEW ELI SPEARS, OF DE RIDDER, LOUISIANA.

LOG-HOOK.

951,463.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MATHEW ELI SPEARS, a citizen of the United States, residing at De Ridder, in the parish of Calcasieu and State of Louisiana, have invented a new and useful Log-Hook, of which the following is a specification.

The objects of the invention are, generally, the provision in a merchantable form of a device of the class above described which shall be inexpensive to manufacture, facile in operation and devoid of complicated parts; specifically, the provision of a hook having spaced teeth of novel and improved construction, of a prong adapted to be disposed between the teeth and assembled with the hook, and of novel means for retaining the prong between the teeth; other and further objects being made manifest hereinafter as the description of the invention progresses.

The invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawings, and particularly pointed out in that portion of this instrument wherein patentable novelty is claimed for certain distinctive and peculiar features of the device.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings.

In the accompanying drawings, Figure 1 shows my invention in front elevation; Fig. 2 is a perspective of the gripping hook; Fig. 3 is a longitudinal section of a portion of the gripping hook, parts being shown in elevation; and Fig. 4 is a transverse section of the hook at the lower end thereof.

In the accompanying drawings, the numeral 1 denotes a "crotch line" so-called, having at its lower extremity branches 2 the ends of which are assembled with hooks 3 which are adapted to be inserted into the ends of a log 4, the hooks 3 being provided with jerklines 5. It is to be understood that a steam winch or other suitable winding means may be connected with the crotch line 1 in order that the log 4 may be loaded on a car or lowered into the hold of a vessel. The jerklines 5 are employed to direct the log to its place, as it is lowered, and to free the hooks from the ends of the log when the

same has been lowered to its destination, and the jerkline 1 slacked.

Passing now to a detailed description of the hook 3 and referring particularly to Fig. 2 wherein the hook is shown in detail, it will be seen that the same may roughly be described as being L-shaped, comprising a long arm 6 and a short arm 7. The extremity of the long arm 6 is provided with an aperture 8 designed to receive the lower extremity of the branch 2 of the crotch line. Projecting from that face of the short arm 7 which is remote from the aperture 8 is a lug 9 having an aperture 10 designed to receive one end of the jerkline 5. The lower extremity of the short arm 7 is enlarged to form a shoulder 11 adapted to extend toward the log when the hook is in use. Through this shoulder 11 and through the body of the arm 7 extends an aperture 12 as shown to best advantage in Figs. 3 and 4. Disposed upon either side of this aperture 12, and projecting from the shoulder 11, are spaced teeth 14 which in the present instance are wedge-shaped, the line defining the chisel edge of the teeth being disposed transversely of the hook. The adjacent faces of the teeth 14 are beveled as denoted by the numeral 15, to form a V-shaped slot the broader portion of which is adjacent the extremities of the teeth 14, the narrower portion thereof being adjacent the shoulder 11 from which the teeth 14 project. I further provide a spur or prong denoted generally by the numeral 16 and adapted to be mounted between the teeth 14. This spur 16 comprises a pointed head 17 which in the present instance is shown as being substantially conical in form. Upon opposite sides, this end 17 is beveled as denoted by the numeral 18 to conform to the adjacent, beveled faces 15 of the teeth 14. Extending from the head 17, at the inner end thereof, is a shank 19 which is of less diameter than the inner face of the head 17 whereby is formed a shoulder 20 adapted to engage the hook laterally, beyond the periphery of the aperture 12 in which the shank 19 is mounted. The shank 19 may be assembled with the hook in a variety of ways; in the present instance, I have threaded the extremity of the shank 19 and provided a nut 21 adapted to be rotated upon the extremity of the shank 19 to engage the

hook, whereby the beveled portion 18 of the head may firmly be wedged between the slant faces of the teeth, the shoulder 20, at the same time, being drawn into firm abutment with the hook proper.

The pointed head 17 of the spur is carried a considerable distance beyond the teeth 14 and it will be seen, that, when the hook is introduced into a log the extremity of the pointed head 17 will be the portion of the device which will first engage the end of the log. The pointed head 17 will sink into the log until the chisel edges of the teeth 14 also engage the log upon each side of the pointed head 17. These teeth 14 thus not only serve to reinforce the holding effect of the head 17 of the spur, but at the same time, serve to prevent the log from rotating upon an axis defined by the heads 17 of the spurs which are mounted in the opposite ends of the log. These teeth 14, being wedge-shaped, serve to prevent the spur 16 from entering too deeply into the log, but, should the teeth 14 be driven into the log to their full length, the shoulder 11 of the hook will form an abutment which will finally receive the end of the log. This shoulder 11 serves to space the hook proper from the log, thus preventing the hook from becoming gummed by contact with the end of the log.

I am aware that it is not new to equip a gripping hook for a log loader, with a cup-shaped end beyond the periphery of which extends a central conical spur. I regard my invention, however, as being a distinct improvement over devices of this type for the reason that the cup-shaped end of the hook tends to fill with gum, the accretions tending to prevent the device from obtaining a firm hold upon the log. Furthermore, in devices of the class above-mentioned, the periphery of the cup is usually circular in outline, and, since the point of the spur defines the center of the periphery of the cup, the device is not operative to prevent the rotation of the log between the hooks.

The spur 16 is adapted to be removably mounted in the end of the hook and, should one of these spurs become dulled, it is not necessary to throw the entire hook aside or to send it to a blacksmith shop for repairs. The spur may simply be removed from the hook, and another, new spur, inserted in its place. The peculiar construction of the head

17 of the spur, and the relation between the head and the teeth 14, serve to promote the security of the mounting of the spur in the device.

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

1. In a device of the class described, a gripping hook having at one end, an outstanding shoulder and being provided with spaced, wedge teeth extending from the shoulder; and a prong mounted between the teeth and arranged to project beyond the teeth.

2. In a device of the class described, an apertured gripping hook having spaced teeth; a prong removably wedged between the teeth and having a shank to engage the aperture in the hook; and means for locking the prong between the teeth.

3. In a device of the class described, an apertured gripping hook having spaced teeth; a prong comprising a head arranged to project beyond the teeth and being disposed between the teeth, the head having a reduced shank to engage the aperture of the hook, the inner end of the head being arranged to engage the hook beyond the periphery of the aperture therethrough.

4. In a device of the class described, a gripping hook having spaced teeth, the adjacent faces of the teeth being beveled; and a prong disposed between the teeth and arranged to project beyond the teeth, the said prong being wedge-shaped at its base to engage the beveled faces of the teeth.

5. In a device of the class described, an apertured gripping hook having spaced teeth, the adjacent faces of the teeth being beveled; a prong comprising a head arranged to project beyond the teeth and being disposed between the teeth, the head being beveled laterally to engage the beveled faces of the teeth, the head having a reduced shank to engage the aperture of the hook, the inner end of the head being arranged to engage the hook beyond the periphery of the aperture therethrough.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MATHEW ELI SPEARS.

Witnesses:

CALVIN B. HARPER,
D. ILES.