Oct. 31, 1950 C. R. PIEPER 2,527,651

PULLEY BLOCK

Filed April 1, 1949

FIG. 1.

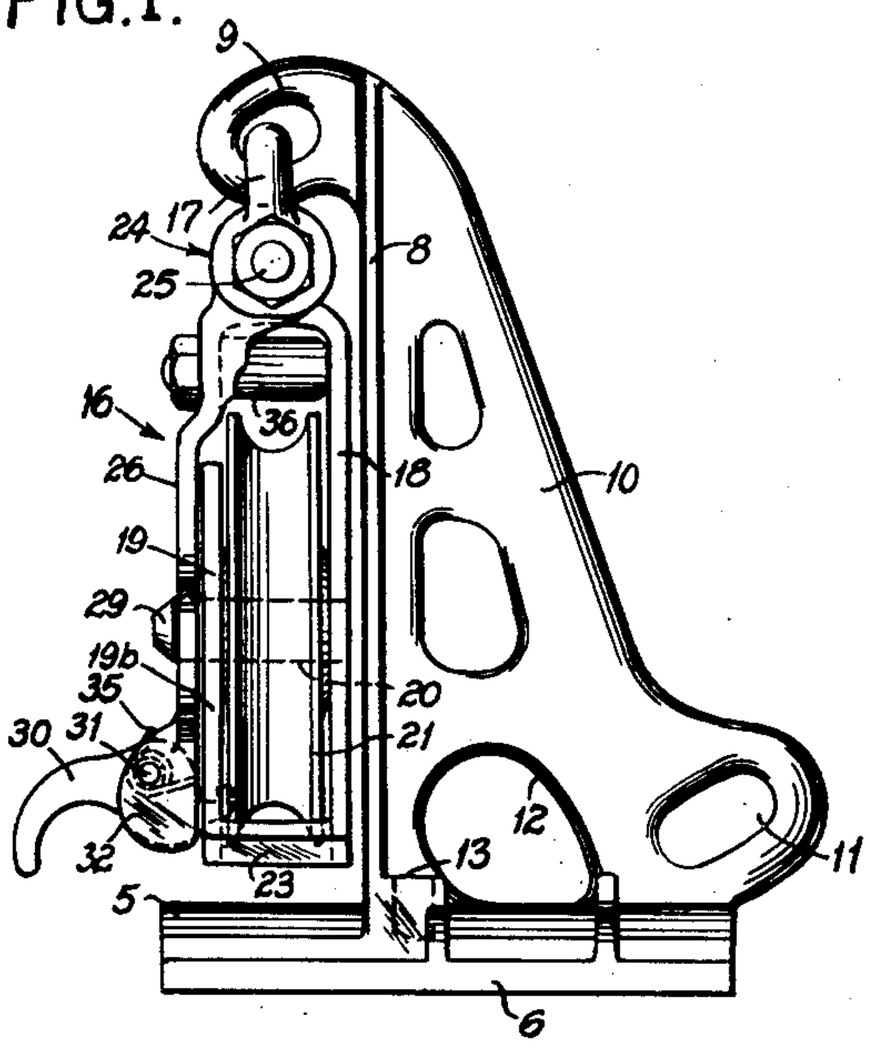


FIG. 2.

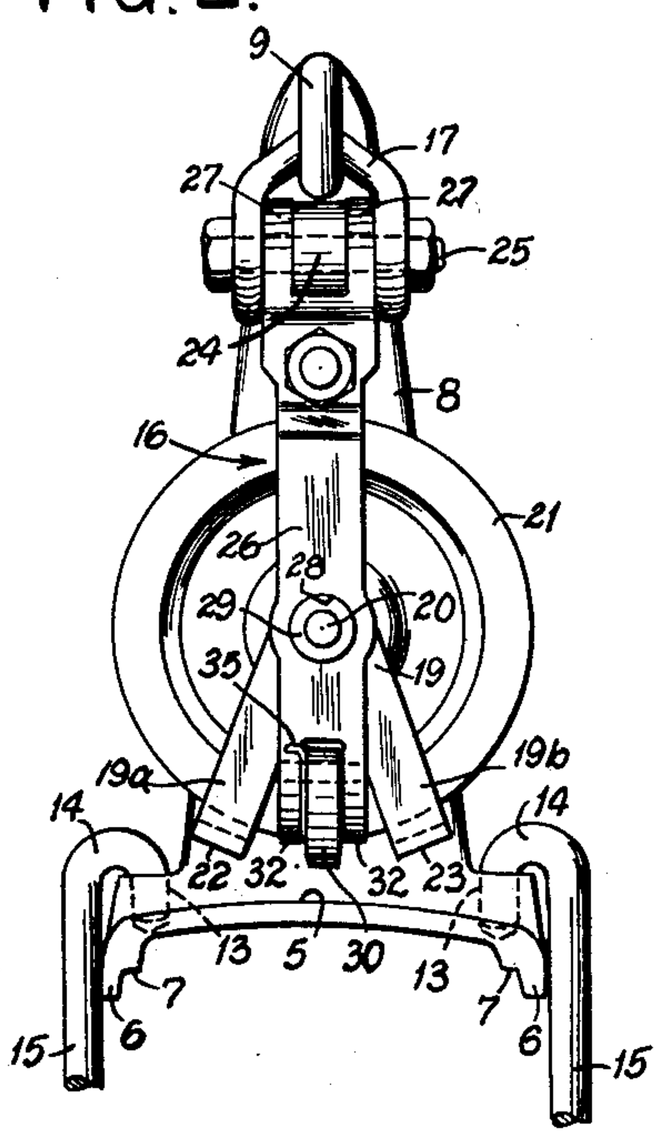
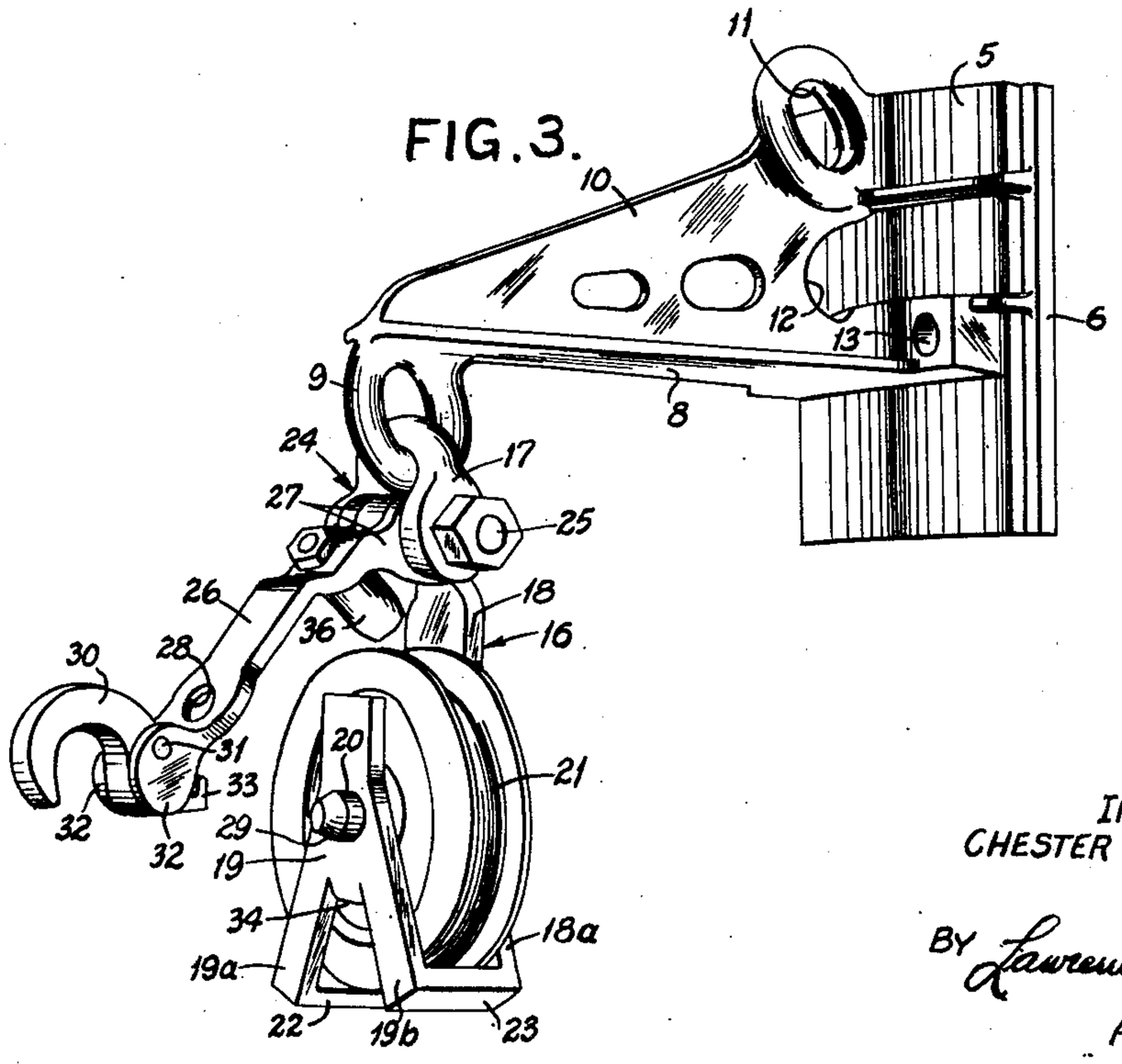


FIG. 3.



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PULLEY BLOCK

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1 Claim. (Cl. 254—193)

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My invention relates to improvements in pulley blocks especially adapted for use in connection with the stringing and tensioning of electrical power line conductors, or as a gin for hoisting transformers and other line apparatus. More particularly the invention relates to an improved side opening snatch block.

An object of the invention is to provide hoisting tackle of light weight, yet extremely strong and rugged construction so that it may be employed for raising relatively heavy objects in addition to its use as a means for stringing electrical line conductors.

An object of the invention is achieved in the provision of an improved snatch block wherein one side of the pulley supporting frame is adapted to be swung open to permit of lateral introduction and removal of a conductor or hoisting cable to and from the pulley.

In brief, the invention resides in the form, construction and arrangement of parts of a side opening snatch block including a frame that extends about the pulley and provides bearings at opposite sides thereof for the pulley axle. A gate member hinged at its upper end also affords bearing support for the axle at the open side of the frame and carries a manipulating latch lever at its lower end, engageable with the frame. The construction is such as to eliminate load stresses from the gate latching means, to enable the block to operate smoothly under heavy loads when the gate is either open or closed, to assure positive locking of the gate and to enable the latching means and the gate to operate freely when the device is under load.

Other objects and advantages will appear from the description and accompanying drawing wherein:

Fig. 1 is a side view;

Fig. 2 is a front view including fragmentary portions of mounting clamp hooks, and

Fig. 3 is an elevational view in perspective with the gate member shown in open position.

Referring now to the drawing, a mounting bracket for the block assembly comprises a base plate **5** having depending side flanges **6** internally shouldered as indicated at **7** to afford firm seating of the plate upon all standard cross-arms. A flat bracket arm **8** extends at a right angle from the back of the base plate, terminating at its upper end in a forwardly projecting eye **9**. A gusset plate **10** formed integrally with the arm **8** and base **5** has a rearwardly projecting eye **11**, and an opening **12** at its junction with the base to afford a passage for a chain binder (not

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shown), or means of other form for securing the bracket to a line pole, in the position shown in Fig. 3. Socket recesses **13** at the opposite side edges of the base plate are adapted to accommodate the end hooks **14** of clamping bolts **15** which, together with a transverse strap and wing nuts (not shown) constitute effective means for attaching the bracket to the cross-arm of an overhead support in the position illustrated in Figs. 1 and 2.

The frame **16** of the pulley block assembly is suspended by a clevis **17** linked with the bracket eye **9**. The other eye **11** affords a point of connection for an additional pulley block, as where the handling of two conductors or cables at a single bracket mounting is desirable. Frame **16** as viewed in Fig. 1 is an integral U-shaped structure, having spaced legs or side portions **18** and **19** of unequal length, united at their lower extremities. These portions are provided with aligned openings for the axle **20** of a pulley **21**. Both side portions **19** and **18** are bifurcated below the axle openings in the formation of divergent branches **19***a*, **19***b*, **18***a* and **18***b*, the latter one not appearing on the drawing. Related pairs of these branches are connected together at their lower ends by spaced transverse portions **22** and **23**. The shorter side **19** of the frame terminates below the upper edge of the pulley so that a conductor or other line member may be introduced laterally into the frame and onto the pulley. The opposite, longer frame side **18** extends upwardly beyond the pulley and has an eye or hinge portion **24** at its upper end that extends between the paired arms of the clevis **18** and is pivotally connected thereto by a hinge bolt **25**.

A gate member **26** is hingedly connected at its upper end to the portion **24** of the frame and also to the clevis **18**. For this purpose the gate is provided with spaced hinge portions **27** that engage the hinge bolt **25** on opposite sides of the eye portion **24** and between the arms of the clevis. The gate is provided with an opening **28** which is adapted to fit closely about the end portion **29** of the pulley axle that protrudes from the face of the frame side **19**. The protruding end of the axle is tapered as shown to afford adequate clearance when the gate is swung off and on the same. Means for latching the gate in closed position are provided by a latch lever **30**, pivoted by a pintle **31** to and between a pair of spaced ears **32** formed on the lower end of the gate that extends beyond the axle opening **28**. The manipulating arm of the latch lever curves outwardly and downwardly from the gate, and the opposite end projects in-

wardly and terminates in an upwardly directed lip **33** which is engageable with a keeper **34** formed at the crotch of the converging frame portions **19***a* and **19***b*.

A spring **35** yieldingly retains the latch lever in position to engage the keeper which is provided with a sloping outer surface so that the lip **32** will ride over the same and snap into latching engagement therewith when the gate is closed.

As a means for retaining a conductor or the like in place on the pulley groove a cylindrical keeper element **36** is mounted on the gate in a position to overlie the pulley in transverse relation thereto when the gate is in closed position. The end of the element **36** is reduced, as shown, to clear the outer flange of the pulley.

Among the advantages of the construction illustrated and described herein, as compared to that of other side opening snatch blocks of which the applicant has knowledge is the arrangement whereby the latch provisions for the gate are separate from other provisions that enable the gate to serve as a load supporting portion of the frame. Consequently the latch provisions are freely operable at all times and there is no requirement for special manipulation of the assembly prerequisite to releasing the latch and opening the gate. Moreover, when the gate is open the pulley is cradled on frame bearings at opposite sides thereof so as to avoid all of the known disadvantages of a single bearing support. Other objects have been achieved in the hinging arrangement of the frame, gate and clevis members that make for simplicity and strength.

What I claim is:

In a snatch block, a frame comprising spaced

opposed sides of unequal length, said frame sides being bifurcated at their lower end portions and connected together at the lower extremities of their furcations, an axle supported by and between said frame sides, said axle projecting outwardly from the shorter one thereof, a pulley on said axle, a gate member, a clevis, a bolt disposed at a right angle to the axle and hingedly connecting together said clevis, the upper end of said gate and the upper end of said frame, said gate having an opening adapted to fit closely about the projecting end of said axle, a latch lever pivoted to the lower end of said gate and adapted to engage the shorter frame side between the said furcations thereof, and a member mounted on said gate in a position to overlie the pulley to retain a line member thereon when the gate is in closed position.

CHESTER R. PIEPER.

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