S. D. LE CLAIR.

SISTER HOOK SNATCH BLOCK.

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1,436,348.

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Fig. 2.

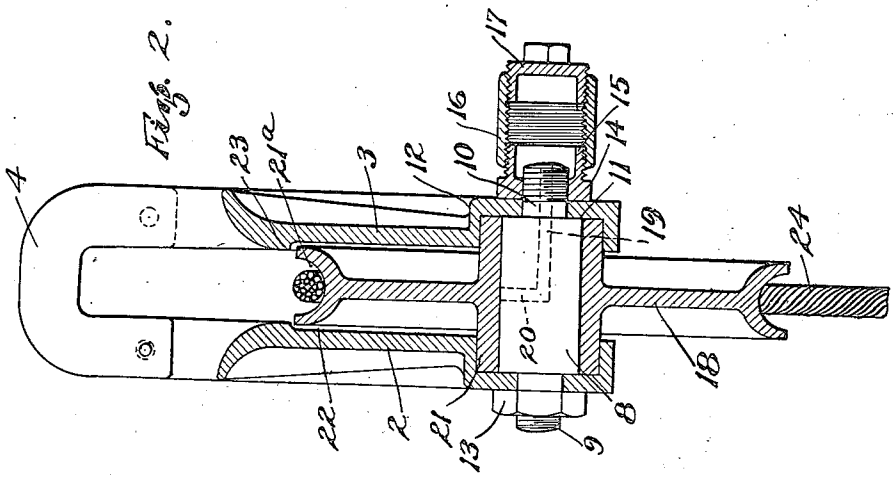


Fig. 3.

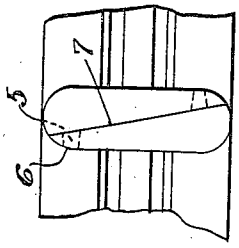
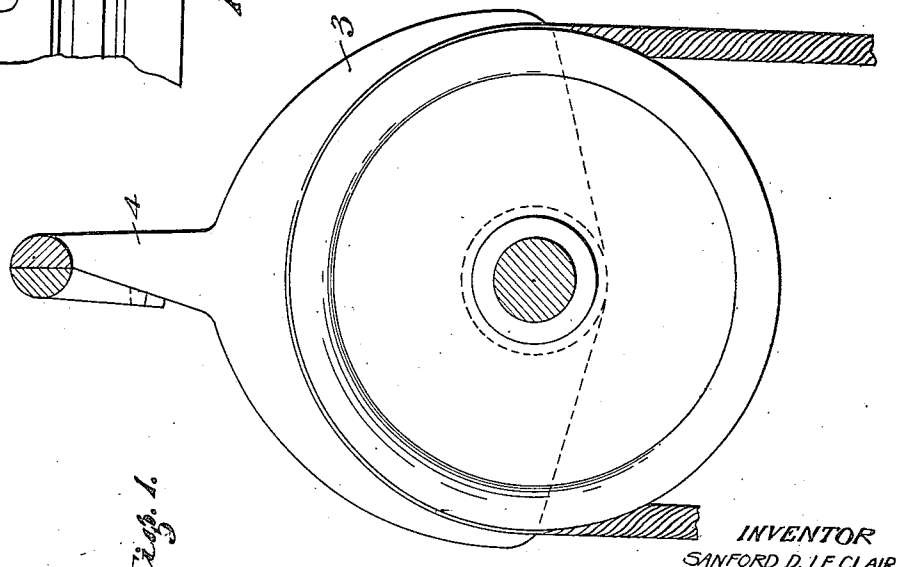


Fig. 1.



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SISTER-HOOK SNATCH BLOCK.

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To all whom it may concern:

Be it known that I, SANFORD D. LE CLAIR, a citizen of the United States, residing at the city and county of San Francisco and State of California, have invented new and useful Improvements in Sister-Hook Snatch Blocks, of which the following is a specification.

This invention relates to snatch blocks and especially to blocks of the sister hook type.

One of the objects of the present invention is to generally improve and simplify blocks of the character described, to reduce the cost of manufacture without lessening strength and durability, and to provide a structure by which accidental release of the cable will be prevented.

Another object of the invention is to automatically interlock and reinforce the sister hooks so as to strengthen the same when a heavy pull is being exerted.

Further objects will hereinafter appear.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which:

Figure 1 is a side elevation of the block partially in section.

Fig. 2 is a central, longitudinal, transverse section.

Fig. 3 is a partial plan view of the block showing the manner in which the sister hooks are interlocked and reinforced.

Referring to the drawings in detail, there is illustrated a snatch block of the sister hook type, which consists of a pair of side plates 2 and 3. These side plates are identical in shape and construction and each plate is substantially semi-circular, as shown in Fig. 1. The upper end of each plate terminates in a hook portion 4 and these hooks are adapted to register and interlock, as shown in Figs. 1 and 3. The interlocking feature is accomplished by forming a lug 5 on the heavy end of each hook which is adapted to enter a recess 6 in the lighter end of each hook, i. e., the hooks taper from end to end as shown at 7, thereby forming a heavy and light end. The purpose of interlocking the hooks is hereinafter described.

For the purpose of securing the side plates 2 and 3 and for maintaining a predetermined spacing between the same a shive pin 8 has been provided. This pin is provided with a reduced threaded extension at each end as indicated at 9 and 10. These extensions form shoulders 11 with which hub-like projections 12, formed on the side plates, are adapted to engage, i. e., engagement of the hub portions of the annular shoulders 11 formed on the shive pins limits the inward movement of the side plates and thereby maintains a predetermined spacing between the same, the side plates being secured on the pins or on the reduced extensions 9 and 10 by means of a nut 13 at one end and by means of a nut 14 at the opposite end. This nut is extended and exteriorly threaded as at 15 to receive a coupling 16, the outer end of which is closed by means of a plug 17, the coupling 16 and the plug 17 forming a grease cup by which grease is automatically supplied to the pin 8 and a shive 18 journaled thereon, i. e., a central opening or passage 19 is formed in the pin which communicates with the grease chamber formed within the coupling 16, the central passage 19 being extended as at 20 to supply grease to the exterior surface of the pin and thereby lubricate the shive 18. The shive proper is provided with a hub 21, the length of which is slightly less than the distance formed between the inner faces of the hubs 12 formed on the side plates. A free running fit is thus maintained between the side plates and the shive and lateral movement of the shive is prevented as the clearance employed is very small. The exterior surface of the shive is grooved and shaped as at 21^a to conform with the cable employed and the inner faces of the side plates 2 and 3 are recessed as at 22 to partially overlap the exterior surface of the shive, thus preventing pinching of the cable or jamming of the same between the shive and the side plates. In fact the clearance between the side plates and the periphery of the shive caused by the over-hanging lips or flanges 23 is so small that entrance of the cable 24 between the side plates and the shive will be impossible. The side plates are freely turnable on the reduced extensions 9 and 10 of the shive pin 8, and it is thus possible to separate the hook portions 4. This is obviously a great advantage as it permits easy insertion or removal of the cable with relation to the shive whenever required. The overlapping and interlocking of the hooks is also an obvious advantage as it first of all forms a guard above the shive which prevents jumping or accidental removal of the cable with rela-

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tion to the shive and the side plates. Secondly, interlocking of the hooks by means of the lugs 5 is of importance as it ties or secures the light end of each hook with relation to the heavy end of the opposite hook. This is important as it prevents separating when the hooks are placed under a heavy strain or pull.

Another important feature is the provision of a grease cup such as shown, i. e., heavy standard pipe fittings are employed which may be replaced if lost or damaged and which can stand heavy and rough usage before they are so damaged that replacement will be necessary.

While certain features of the present invention are more or less specifically illustrated I wish it understood that changes in shape, design and construction may be resorted to within the scope of the appended claim. Similarly that the materials and finish of the several parts employed may be such as the experience and judgment of the manufacturer may dictate or varying conditions may demand.

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

A snatch block comprising a pair of side plates, each having an extension terminating in a hook-like projection, each hook having a lug and a recess, the respective recesses being adapted to receive the respective lugs to fasten the hooks together, a pin upon which the side plates are rotatably mounted, said pin having reduced end portions, a sheave having a hub portion mounted on the sheave pin, hub like portions on each of the side plates, each one of which has an inwardly extending annular flange substantially parallel with the axis of the pin and adapted to enclose the end portions of the sheave hub and have a turning bearing thereon, nuts on the end portions of the pin to retain the parts in position, the inside of each side plate being recessed to partially receive the sheave flanges and having their upper side flared outwarly from the edge of the recesses, the side plates and hooks being free of obstructions over the sheave to provide a relatively long, unobstructed open space from the hooks above the lugs and recesses to the sheave when the hooked ends are opened or closed.

SANFORD D. LE CLAIR.