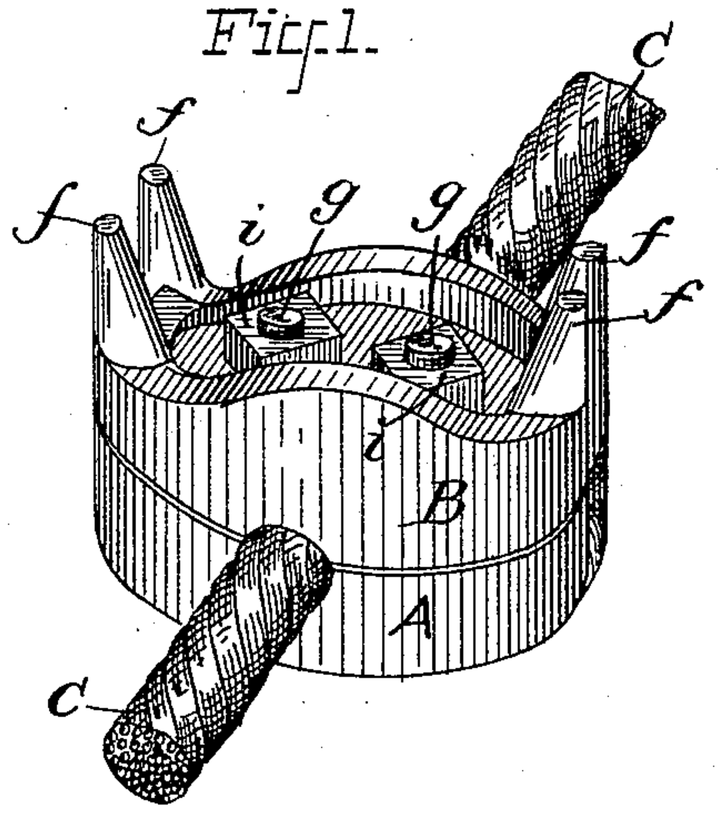
(No Model.)

M. GARLAND.

SPROCKET DEVICE FOR CONVEYERS.

No. 480,010. Patented Aug. 2, 1892.

Fig. 1.



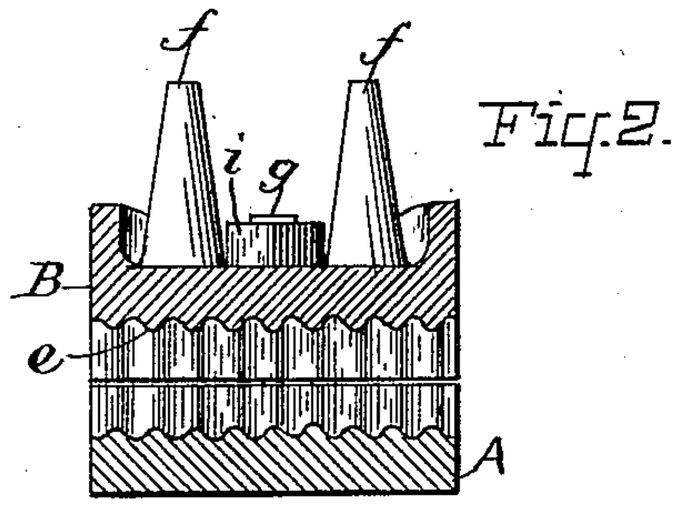
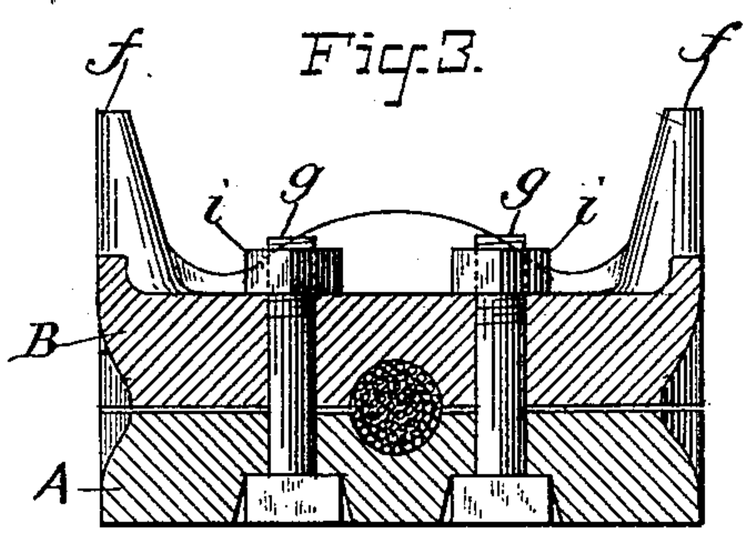


Fig. 2.

Fig. 3.



ATTEST:
J. A. Hurdle
M. E. Foster.

INVENTOR:
Michael Garland
By
L. N. McIntire
Attorney

UNITED STATES PATENT OFFICE.

MICHAEL GARLAND, OF BAY CITY, MICHIGAN.

SPROCKET DEVICE FOR CONVEYERS.

SPECIFICATION forming part of Letters Patent No. 480,010, dated August 2, 1892.

Application filed April 25, 1892. Serial No. 430,486. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL GARLAND, of Bay City, in the county of Bay and State of Michigan, have invented an Improved Combined Sprocket-Like and Carrier Device for Log Haul-Ups; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

My present invention relates to that species of conveyer-machines adapted particularly to the purposes of handling logs and conveying or hauling the latter from out of the water or elsewhere and delivering them at some desired locality of storage or to a sawmill and to be subsequently sawed up into lumber. Such conveyer-machines are quite commonly known as "log haul-ups," and in their construction usually involve the use, in connection with some sort of trough or lateral guides, of a centrally or intermediately arranged traveling endless cable or chain provided with some sort of devices the sharp points or upwardly-projecting lugs of which engage with or take hold of the log to convey or haul the latter obliquely upward out of the water and thence horizontally along to a shorter or longer distance, as required, to a point at which the log is discharged from the conveyer. In such log-haul-up machines as are provided with carrier-chains the carrier devices are usually either cast integral with or else securely fastened to certain of the links of the chain, while in those machines in which some sort of rope or cable is used the devices designed to engage the log are in some manner clamped around about or otherwise fastened to the rope or cable at proper distances apart.

I propose by my invention to provide for use an improved carrier device or attachment to be used in connection with log haul-ups which are provided with ropes or cables; and to this main end and object my invention may be said to consist in the novel construction of combined rope-clamp and toothed carrier device, which will be found hereinafter fully described, and which will be particularly pointed out and defined in the claims of this specification.

To enable those skilled in the art to understand and use my invention, I will now proceed to more fully describe my improved carrier device for the ropes or cables of log-haul-up machines, referring by letters to the accompanying drawings, which form part of this specification and in which I have shown my invention carried out in that precise form in which I have so far successfully practiced the same, though of course it may be subject to some modification.

In the drawings, Figure 1 is a perspective view of my improved carrier device shown attached to portions of the steel cable of a log-haul-up machine. Fig. 2 is a vertical section of the parts shown in perspective at Fig. 1, but with the cable omitted. Fig. 3 is a vertical central section taken in a plane transverse to the plane of section of Fig. 2.

In the several figures the same part will be found designated by the same letter of reference.

A and B are respectively the lower and upper parts of one of the metallic devices, a series of which I employ in connection with the endless cable or rope C, said devices being, of course, securely fastened to the cable at the proper or desired distances apart throughout its length. As clearly shown, the two castings or parts A and B are formed each with a semi-cylindrical recess or groove arranged diametrically and so that when A and B are placed in the desired relative position and secured together, as seen at Fig. 1, these recesses form a cylindrical aperture through the device for the accommodation of the wire or other rope C. Preferably the surfaces of these semi-cylindrical recesses in the two castings are corrugated, as clearly seen at *e*, Fig. 2, for the purpose of giving to the metallic parts a capacity to grip the rope C, round about which they are fastened, with the greatest possible tenacity and render quite impossible any slip of the carrier device on the rope when the parts are subjected to the draft strain consequent to the conveying or log-haul-up operation of the machine. The upper casting or part B is formed or provided with log-engaging prongs, spikes, or upwardly-projecting lugs *f*, (in the case shown four in number,) which are arranged in sets at diametrically-opposite portions of the top of said casting B and which perform the well-known function of analogous log-engaging prongs or

spikes in other log-haul-up devices. The number, size, shape, and precise arrangement of these points *f* may of course be varied as circumstances may require and so long as they be made to act efficiently to engage at various points throughout its length with or take hold of the under portion of the surface of the log to be carried up and along by the machine. The casting B is formed with a depression or nearly-circular recess at the top, as shown, within which are located and seated the nuts *i i* of the two screw-bolts *g g*, by means of which the two parts A and B of the carrier device are securely clamped onto the rope C, and thus securely fastened together and to the said rope.

In the case shown the depth of the top recess of casting B is such as to afford ample room for the nuts *i* and the threaded ends of the bolts *g* without any interference of the ends of the bolts with the log being conveyed, which log is supposed to rest on top of the engaging-lugs *f* and by its gravity cause the latter to be indented into the surface of and take a secure hold on the log or timber.

In carrying my invention into use the improved clamps and carrier devices will of course be placed at proper distances apart to have the requisite number engage simultaneously with each log to be hauled up, and if the improved carrier devices be used on the rope or cable to perform, also, the functions of the sprocket-like devices thereon then of course they must be spaced on the rope at such points that they will always come into engagement with the sprockets of the wheels over which the cable runs. By forming the upper casting B with the top recess and so as to leave the rim-like portions *m* (see Figs. 1 and 2) both the leading and rearmost vertical surfaces of the carrier-clamp are ample and properly shaped to run in engagement with the sprockets or teeth of the sprocket-wheels over which the endless cables of the machine may pass.

It will be seen that, while in the use of my improved carrier devices the log to be hauled up and carried along by the conveyer will be handled with perfect efficiency, the device itself is simple and economic of construction or manufacture and can be easily applied to any rope or cable conveyer to work perfectly therein.

There is little or no liability of any breakage or derangement of the carrier devices; but in case of any, any of the parts can be replaced by interchangeable or duplicate parts by simply removing and replacing the two securing-bolts and their nuts by means of which the two castings are clamped onto the rope C.

In case of the wearing out of the engaging-lugs *f* or in the event of any of them being found inefficient to properly bite and hold the log a new top casting B may be readily and quickly substituted and will combine with the old other parts of the improved carrier device.

Having now so fully shown and described my improved cable attachment for log-haul-up machines and the precise manner in which I have so far made and used the same that those skilled in the art can easily understand and practice my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In that type or species of log-haul-up machines or conveyers in which a rope or cable is employed, the combination, with the traveling rope or cable, of an attachment device comprising two metallic castings, each grooved to constitute a half-housing for the rope or cable, one of said castings being formed or provided with sets of upwardly-projecting log-engaging teeth and the two parts being securely clamped together and onto the cable, all in substantially the manner and for the purposes hereinbefore set forth.

2. A rope or cable carrier attachment device composed of two parts A and B, adapted to be clamped onto the rope, as specified, the upper part B having the teeth *f* and the combined parts being shaped to coact or properly engage with the teeth of a sprocket-wheel, all as and for the purposes set forth.

In witness whereof I have hereunto set my hand this 7th day of April, 1892.

MICHAEL GARLAND.

In presence of—
MORRIS L. COURTRIGHT,
ALFRED B. LENNOX.