

G. S. WITHAM, JR.
CARRIER CHAIN.
APPLICATION FILED AUG. 22, 1910.

1,029,566.

Patented June 11, 1912.
2 SHEETS—SHEET 1.

Fig. 1.

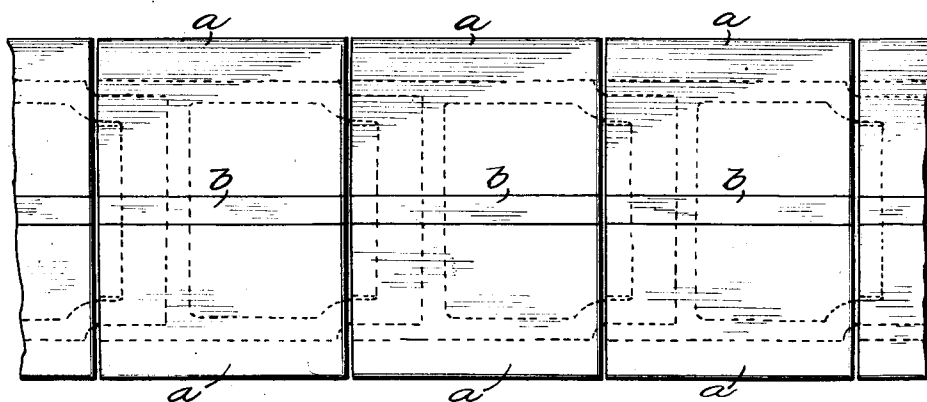


Fig. 2.

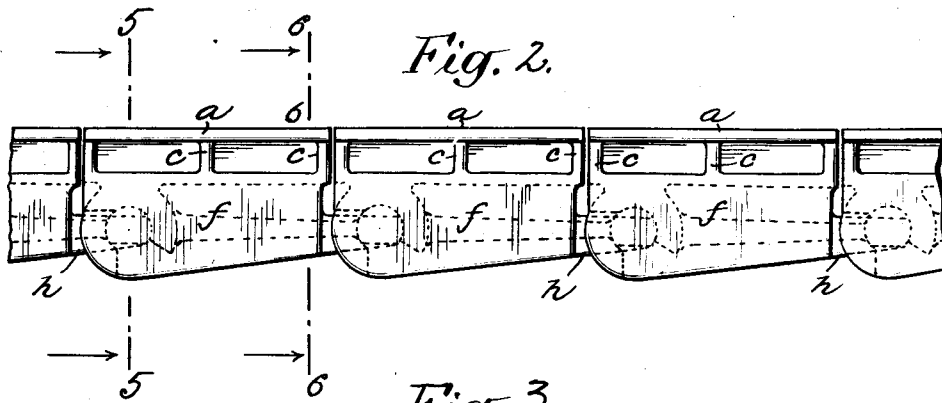
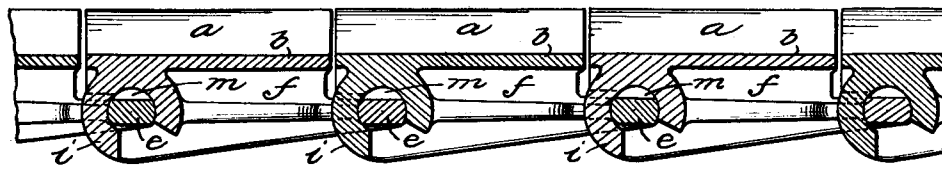


Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4

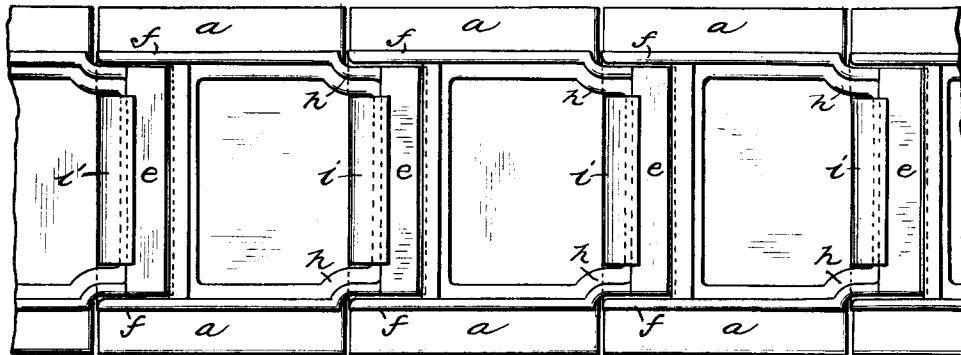


Fig. 5.

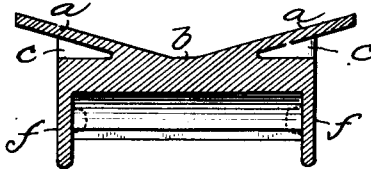


Fig. 6.

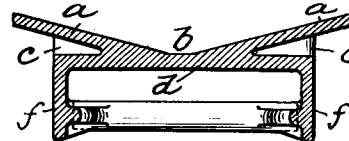


Fig. 7.

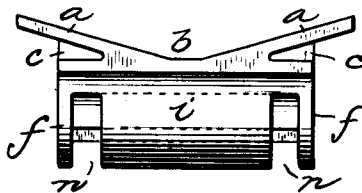


Fig. 8.

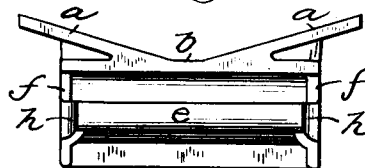
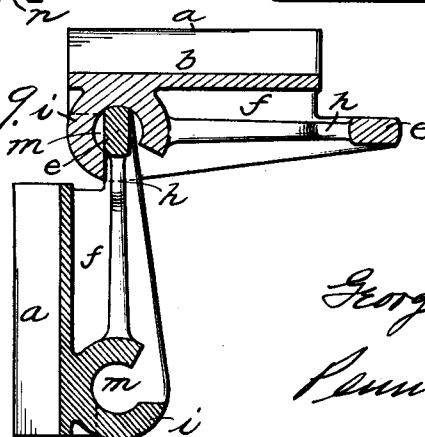


Fig. 9.



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UNITED STATES PATENT OFFICE.

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CARRIER-CHAIN.

1,029,566.

Specification of Letters Patent.

Patented June 11, 1912.

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To all whom it may concern:

Be it known that I, GEORGE S. WITHAM, Jr., a citizen of the United States, residing at Hudson Falls, Washington county, State of New York, have invented certain new and useful Improvements in Carrier-Chains; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in carrier chains, principally designed for conveying pulp wood and the like to the saws, rossers, splitters and like appliances of a pulp mill; although, it is likewise applicable to other similar purposes in analogous arts.

In the accompanying drawings, Figure 1. represents a top plan view of a portion of a carrier chain embodying my invention. Fig. 2. represents a side elevation thereof. Fig. 3. represents a central longitudinal section. Fig. 4. represents a bottom plan view. Fig. 5. represents a section on the line 5—5 of Fig. 2. Fig. 6. represents a section on the line 6—6 of Fig. 2. Fig. 7. represents an end view of one of the individual elements or links of the carrier chain. Fig. 8. represents a like view of the opposite end thereof; and Fig. 9. represents, in longitudinal section, the operation of assembling or disassembling the links of the chain.

Similar letters of reference indicate similar parts throughout the several views.

Referring to the drawings, it will be noted that the carrier chain is made up of a series of individual elements or links alike in structure, and which may conveniently, though not necessarily, be formed of malleable castings. The upper surfaces of these links are of concave or trough shape, to which end they are provided with the oppositely extending outwardly projecting side wings *a*, which merge at their bases into the trough-like bottom *b*. Underlying the side wings *a* are the transverse vertical webs *c*, extending from the bottom *d*, so as to support and strengthen the side wings, without materially increasing the weight of the link as a whole. At its forward end, each link

is provided with a cross bar *e*, extending from one side *f* of the link to the other side, and projecting sufficiently forward of the front edge of the upper surface of the link bottom *b* to leave an intervening recess *h* (see Fig. 9.). At the opposite end of the link there is provided a cylindrical boss *i*, separated from the sides *f*, *f*, by intervening spaces *n*, *n*, and having a hollow interior *m*, slotted along its lower portion from end to end of the boss, as shown.

In assembling the elements or links of the chain, adjacent links are brought into a position substantially at right angles to each other, as indicated in Fig. 9, and in such manner, that the cross bar *e* of one of the links will engage and enter the hollow interior *m* of the boss *i*; whereupon, by bringing the two links into alinement, they will interlock. In like manner, additional elements or links are added until a chain of the desired length is made up, and the final links of the chain can then be assembled to complete an endless circuit appropriate for the particular use intended. Whenever it is desired to disassemble the chain, or to remove an injured or defective link and substitute another for it, the link to be removed is brought into the same position with relation to the adjacent member of the series, as shown in Fig. 9, whereupon it may be readily removed.

As hereinbefore indicated, my invention is of particular advantage in the transfer of pulp wood in mills for the manufacture of pulp and paper. In the present practice, ordinary transfer chains are employed, running along the bottom of troughs or guide ways whose sides are given a steep angle or inclination in order to insure that the wood shall ride the chains. Practically, it is found that, to a greater or less extent, wood thus conveyed likewise scrapes along the sides or inclines occasioning corresponding friction and wear along and upon those surfaces. All of this is avoided in the use of my invention. The individual links being concave or trough-shaped, the pieces of wood center themselves and remain cradled in the conveyer until they reach their designed destination, without occasioning the friction and loss of power due to the use

of the usual chains, while, at the same time, having a larger range of working efficiency, and having increased advantages of assembling, disassembling, and repair as compared with the usual chains.

5 Having thus described my invention, what I claim is:

10 1. A carrier chain, made up of a series of individual links, having inclined side wings merging into a trough-like closed bottom; substantially as described.

15 2. A carrier chain, made up of a series of individual links, having inclined side wings merging into a trough-like closed bottom, and vertical webs underlying the side wings and supporting the same; substantially as described.

20 3. A link for carrier chains, comprising an upper receiving main body portion constituting a cradle or trough with inclined side wings merging into the trough-like bottom at substantially the central upper surface thereof so as to center along the middle portion of the link the material to be conveyed, a subjacent forwardly extending cross-bar at one end of the link, and a sub-

jacent bar-engaging boss at the other end of the link.

4. A link for carrier chains comprising a body presenting a trough-like surface, upwardly inclined side wings merging into said surface and extending laterally beyond the body at opposite sides of the latter, and transverse vertical webs interposed between the lateral portions of the body and the under surfaces of the respective side wings; substantially as described. 30 35

5. A carrier chain, made up of a series of individual links, having inclined side wings merging into a trough-like bottom, a forwardly-projecting cross-bar at one end, and a boss at the other end, said boss having a hollow interior and a longitudinal slot opening into said interior and being furthermore separated from the sides of the link by intervening recesses; substantially as described. 40 45

In testimony whereof I affix my signature, in presence of two witnesses.

GEORGE S. WITHAM, JR.

Witnesses:

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