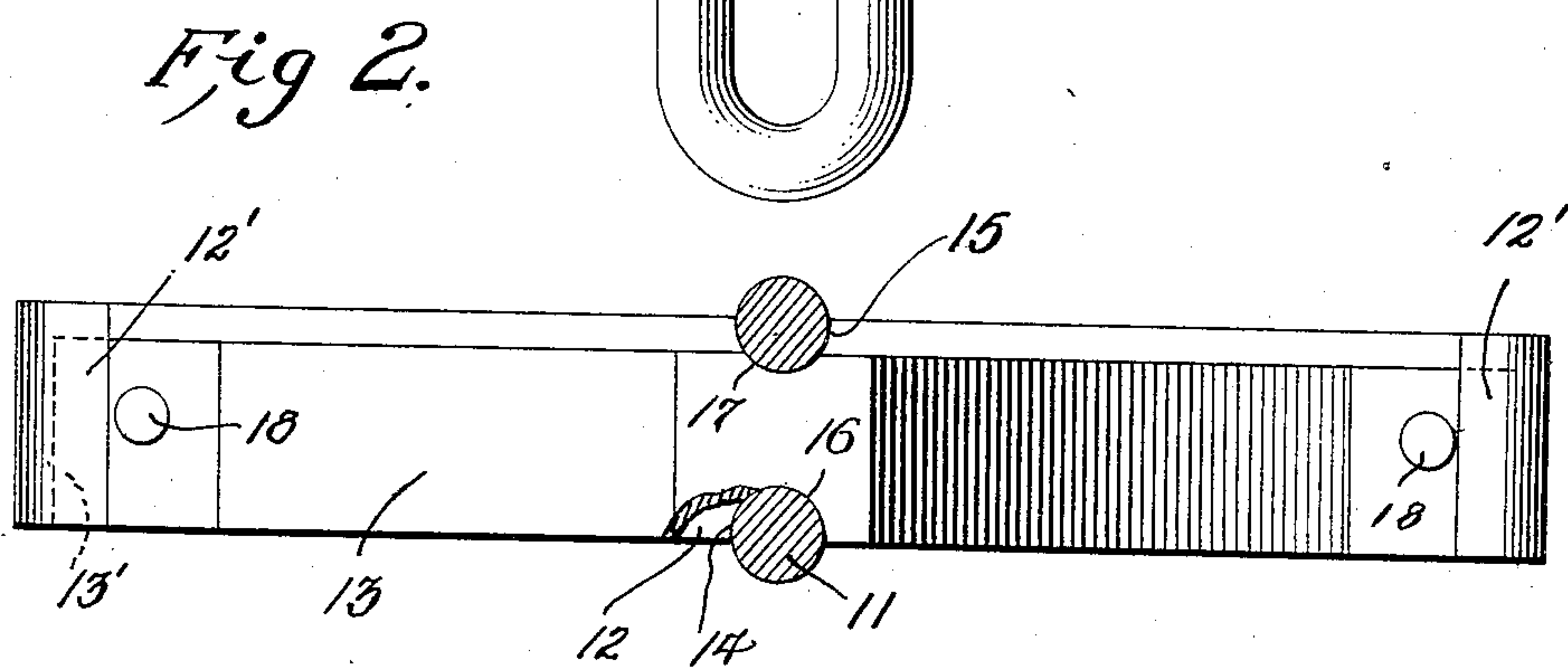
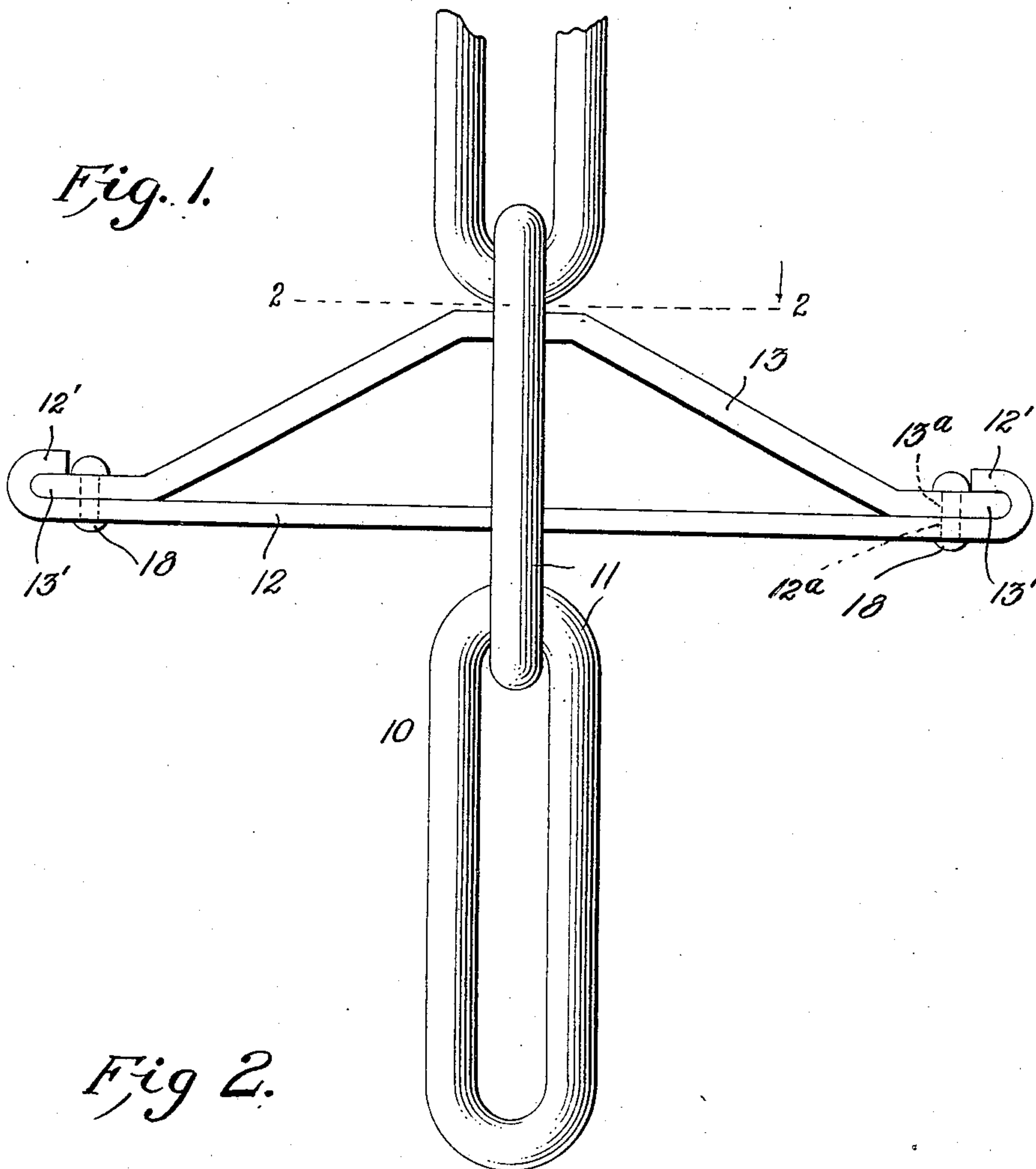


T. C. MORRIS.
CONVEYER FLIGHT.
APPLICATION FILED DEC. 29, 1908.

969,145.

Patented Aug. 30, 1910.



Witnesses

Jos. H. Collins.
S. E. Dodge.

Inventor

T. C. Morris,

By

Beelen Robb

Attorneys

UNITED STATES PATENT OFFICE.

THOMAS C. MORRIS, OF LITTLE ROCK, ARKANSAS.

CONVEYER-FLIGHT.

969,145.

Specification of Letters Patent.

Patented Aug. 30, 1910.

Application filed December 29, 1908. Serial No. 469,793.

To all whom it may concern:

Be it known that I, THOMAS C. MORRIS, a citizen of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Conveyer-Flights, of which the following is a specification.

This invention relates to the class of conveyers, and more particularly to the class in which the endless conveying element is provided with a plurality of carrying devices commonly called flights in the art.

The present invention contemplates an improvement in the flight elements, whereby they are cheap and easy to construct, easy of application to the power element, and are strong and serviceable.

For a full understanding of the invention, reference is to be had to the following detail description and to the accompanying drawings, in which—

Figure 1 is a plan view of a fragment of an endless power chain and indicating one of the flights in position, and Fig. 2 is a transverse section of the power chain on the line 2—2 of Fig. 1, showing a rear elevation of the flight.

Throughout the following detail description and on the several figures of the drawings, similar parts are referred to by like reference characters.

Referring particularly to the drawings the numeral 10 indicates a fragment of an endless power chain composed of a series of links 11 of well known form. Each link comprises parallel side bars and circular ends, the links being connected each to each in planes at right angles to each other.

The improved flight is composed of two main elements, a cross bar 12 and a brace 13. The bar 12 may be of any convenient form, but in the main is preferably flat but with its ends curved rearwardly and inwardly, the extreme ends 12' thereof lying parallel with the main body of the flight and spaced therefrom forming sockets as indicated in Fig. 1. Said bar 12 may be of any convenient length, depending upon the width of the trough or box through which the conveyer operates for the conveyance of any suitable materials such as coal, saw-dust, ashes, and the like. Also said member may be of any desired elevation or width depending upon the amount of material desired to be conveyed thereby. As indicated the bar 12 is provided intermediate of its ends

with circular seats 14 and 15 to embrace the lower and upper bars respectively of the link in which the flight is secured. The seat 15 is substantially semi-circular, and while the seat 14 is indicated as of substantially the same form it may be deeper if desired in order to bring the lower edge of the bar 12 nearer to the bottom of the trough or box. The brace member 13 is adapted to bear against the end of the following link of the power device and has its ends located within the curved end portions of the bar 12, the space between the extreme ends 12' and the body of the bar 12 being made to substantially conform to the thickness of the said brace member. Intermediate of its ends said brace 13 is deflected or curved rearwardly from the plane of the bar 12 so as to constitute in effect a truss, whereby the rigidity of the flight is enhanced. Furthermore, the arrangement of the members 12 and 13 is such as to prevent any likelihood of one end of the bar 12 being distorted or turned backwardly with respect to the link to which it is connected.

The brace member 13 may be of any suitable width or height, but preferably is slightly narrower than the bar 12 in order to facilitate assemblage of the parts. Corresponding to the seats 14 and 15 of the bar 12, the brace 13 is provided with seats 16 and 17, to receive the corresponding side bars of the link. The bar 12 is provided near its ends with holes 12^a, and the brace 13 is provided with corresponding holes 13^a, the pairs of holes being adapted to register when the members are assembled. Any suitable fastening devices such as rivets 18 are employed to secure the parts in proper position after being assembled to prevent separation thereof. In assembling the flight with relation to the link, the bar 12 is first introduced between the side bars of the link and turned at an angle. The brace member 13 is then introduced and turned at such an angle that the extreme ends 13' thereof may be slipped into the spaces between the extreme ends 12' and the body of the bar 12. At such time the seats of the flight members will receive the opposite side bars of the link. The fastening devices 18 will then be inserted in a permanent position. When assembled as thus described the flight may have a slight longitudinal movement within the link, bearing against the next link when in use, but will be prevented from turning

from the right angular relation to the main line of the power chain.

The parts of the device may be made of any suitable size or dimensions and of any desired materials.

Having thus described the invention, what is claimed as new is:

1. In combination with a power chain embodying open links having side bars, of a flight comprising a cross bar located between the side bars of a link, a deflected brace member also located between the side bars of the same link, said members having seats to receive the link bars, and means to secure the ends of the flight members together each to each in a rigid manner.

2. In combination with a power chain embodying open links having spaced side bars, of a flight comprising a bar extending transversely between the side bars of a link and having upper and lower seats to embrace the said side bars, the ends of said bar being bent rearwardly to form sockets, a brace member extending transversely between the side bars of the same link and having its extreme ends seated in said sockets, and fastening devices securing the ends of the flight members rigidly together.

3. The hereindescribed conveyer flight, comprising a flat bar having its extreme ends bent rearwardly and thence inwardly forming sockets, a brace member adjacent to the said bar and having its extreme ends seated in said sockets, the intermediate por-

tion of the brace member being spaced from the body of the first member, and means rigidly securing said members together.

4. In a flight conveyer, the combination of a power chain having links, each of which has parallel side bars, a cross bar located between the side bars of a link and having seats to embrace the same, the ends of the bar being provided with holes and the extreme ends being bent rearwardly to form sockets, a brace member extending transversely between the side bars of the same link, the extreme ends of the brace member being located in said sockets, the intermediate portion of the brace member being spaced from the bar, and the ends of the brace member being provided with holes to register with those of the bar, and fastening devices passed through said registering holes to secure the parts rigidly together.

5. A carrier attachment comprising the combination with the links of a chain, of a bar extending transversely of the link and having recesses in its edges to receive the bars of the link and a brace member secured to the rear portion of the bar and extending through the link, said brace also having recesses to receive the link.

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

THOMAS C. MORRIS.

Witnesses:

E. B. KINSWORTHY,
G. D. HENDERSON.