M. E. FREEMAN.

CUTTING APPARATUS.

APPLICATION FILED JULY 10, 1912.

**1,124,124.** Patented Jan. 5, 1915.

Fig. 1.

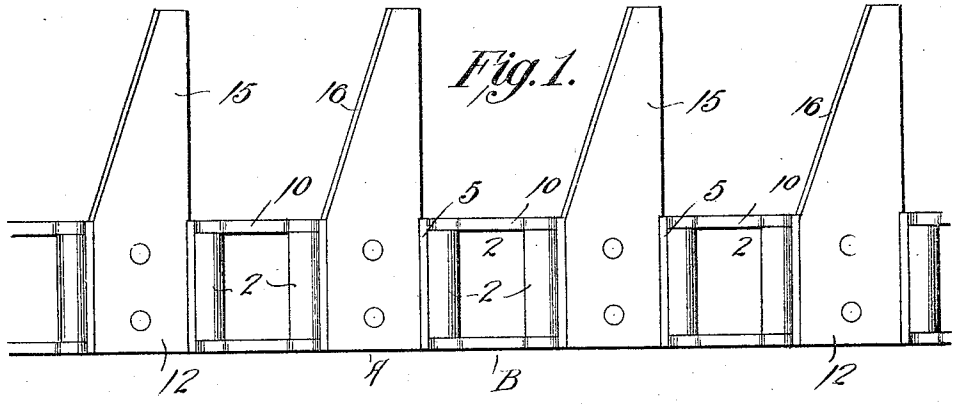



Fig. 2.

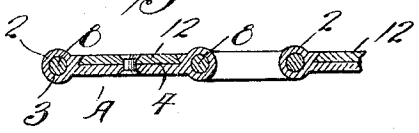



Fig. 3.

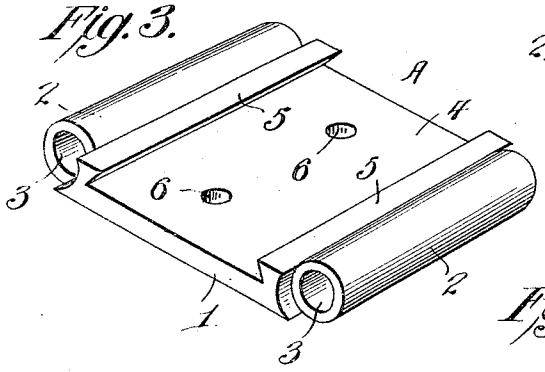



Fig. 4.

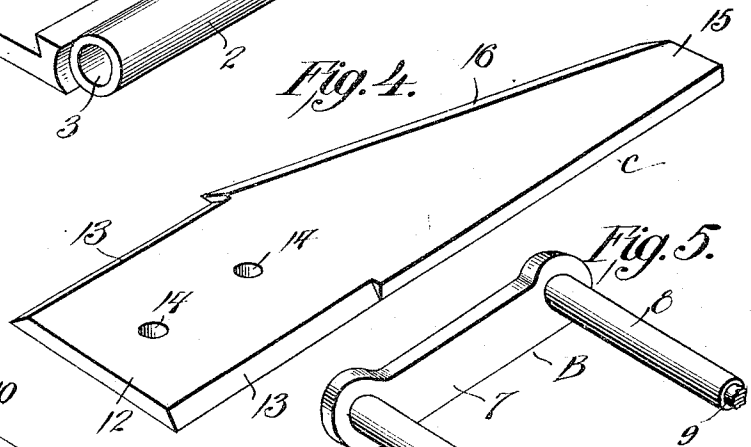
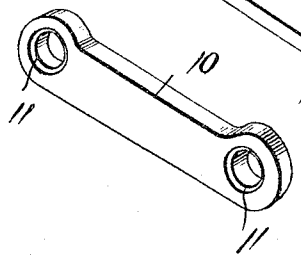



Fig. 5.




Fig. 6.




Witnesses

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D.

# UNITED STATES PATENT OFFICE.

MALON E. FREEMAN, OF COLBY, KANSAS, ASSIGNOR OF ONE-HALF TO JOHN HAMILTON, OF COLBY, KANSAS.

## CUTTING APPARATUS.

1,124,124. Specification of Letters Patent. Patented Jan. 5, 1915.

Application filed July 10, 1912. Serial No. 708,693.

*To all whom it may concern:*

Be it known that I, MALON E. FREEMAN, a citizen of the United States, residing at Colby, in the county of Thomas and State of Kansas, have invented new and useful Improvements in Cutting Apparatus, of which the following is a specification.

This invention relates to cutting apparatus for mowers, reapers and other harvesting machines, and it has particular reference to cutting apparatus including an endless chain carrying the knives or cutters.

The invention has for its object to produce a cutter carrying chain of simple and efficient construction.

A further object of the invention is to simplify and improve the manner of connecting the blades or cutters with the links of the chain.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawing,—Figure 1 is a plan view showing a small portion of a cutter carrying chain constructed in accordance with the invention. Fig. 2 is a sectional view taken on the line 2—2 in Fig. 1. Fig. 3 is a perspective view showing one of the cutter carrying links, detached. Fig. 4 is a perspective detail view showing one of the blades detached. Fig. 5 is a perspective view showing one of the connecting links detached. Fig. 6 is a perspective view showing one of the connecting plates, detached.

Corresponding parts in the several figures are denoted by like characters of reference.

The chain of the improved cutting apparatus is made up of blade carrying links A and connecting links B arranged in alternate order.

Each of the blade carrying links consists of a rectangular body 1 having cylindrical side portions 2, 2 which are axially perforated, as shown at 3, 3. The base or body 1 has a transverse recess 4, the side walls of which are undercut to form overhanging dovetailed flanges 5. The base or body 1 is also provided with bolt holes or apertures 6.

The connecting link B consists of a plate 7 having laterally extending cylindrical pins 8 adapted to engage the axial bores 3 of the tubular side members of proximate blade carrying links A. The pins 8 are of such dimensions as to fit snugly within the axial bores 3, and they are provided with reduced extensions 9 for the reception of a connecting plate 10 which is a mate to the plate 7 and which is provided with countersunk apertures 11 to accommodate the reduced extensions 9 which, after assembling the parts, are upset or riveted to fit the countersinks of the apertures 11 in such a manner as to form a firm connection and a smooth finish.

The blade C comprises a rectangular body portion 12 having beveled side edges 13 to engage the overhanging dovetailed flanges 5 of the cutter carrying link. The body portion 12 of the blade is provided with apertures 14 registering with the apertures 6 in the link A for the passage of fastening members, such as rivets. The cutting portion 15 of the blade is suitably tapered, as shown, and has a beveled cutting edge 16.

It will be seen that the cutting blade may be assembled with the link A in such a manner as to project at either side of said link, and the latter may, therefore, be reversed when desired. The links A and B when assembled together in alternate order will constitute an endless chain which may be mounted and guided in any suitable convenient manner to constitute the cutting apparatus of a mowing machine or harvester, as will be readily understood.

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

In a cutting apparatus, links, plates pivotally connected with the ends of the links and having outer surfaces in alinement with the edges of the links, said plates holding the links spaced from each other, said links

being provided at their sides with recesses which extend from edge to edge of the same and which have inclined side walls, elongated blades having shanks provided with beveled edges which fit snugly in said recesses with their ends flush with one of the edges of the links, said blade having shoulders which bear against the other edges of the links and means for securing the blades in the recesses of the links.

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

MALON E. FREEMAN.

Witnesses:
S. P. McBRIDE,
O. J. SEWELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."