(No Model.)

H. FISHER.

TRACK FOR HAY CARRIERS.

No. 362,438. Patented May 3, 1887.

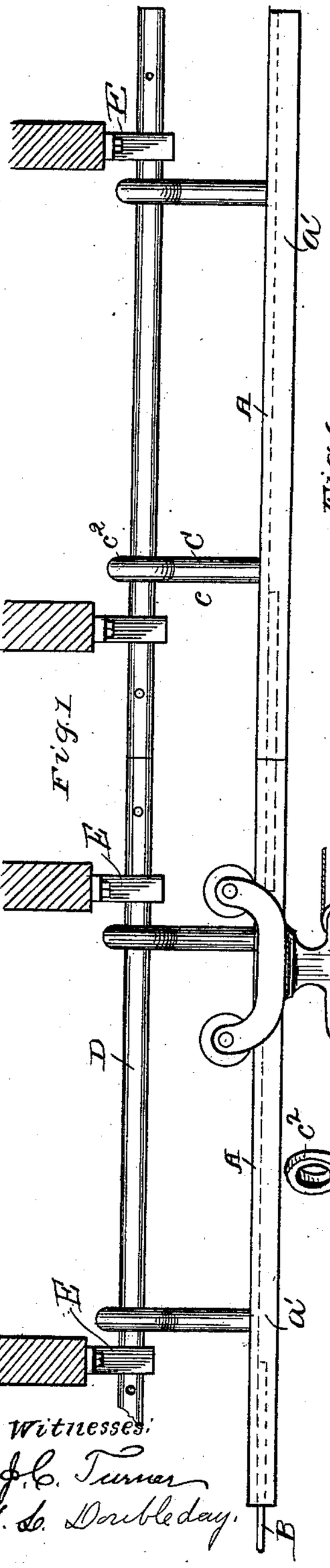

Fig. 1.

Fig. 6.

Fig. 2.

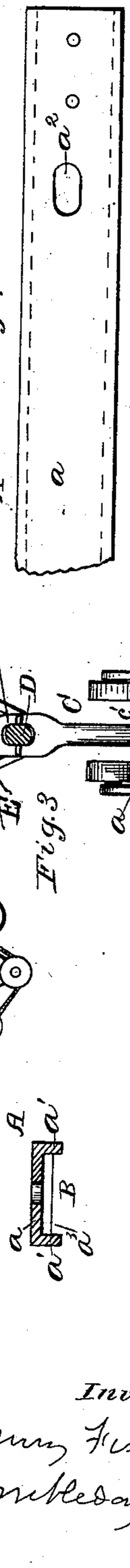

Fig. 4.

Fig. 3.

Fig. 7.

Fig. 8.

Fig. 5.

Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY FISHER, OF CANTON, OHIO, ASSIGNOR TO THE NEY MANUFACTURING COMPANY, OF SAME PLACE.

TRACK FOR HAY-CARRIERS.

SPECIFICATION forming part of Letters Patent No. 362,438, dated May 3, 1887.

Application filed December 8, 1886. Serial No. 221,019. (No model.)

To all whom it may concern:

Be it known that I, HENRY FISHER, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Tracks for Hay-Carriers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improved track to be used for supporting the car or carrier employed in devices for lifting hay.

The track is made in sections and joined at the ends by short plates bolted or riveted to the track-pieces. The latter are provided with apertures by which the vertical supporting-pieces can be readily attached. The said vertical supporting-pieces are detachably connected to an upper supporting-rod adapted to be hung from the rafters or the beams of the barn or structure wherein the hay is to be deposited. The whole apparatus is so designed and has its parts so constructed and arranged that it can be manufactured in final form at the factory and packed and shipped advantageously, dispensing almost entirely with the bolts and other fastening devices heretofore required.

Figure 1 is a side view of a track embodying my improvements, it showing, also, the method of mounting the car or carrier thereon. Fig. 2 is a longitudinal section. Fig. 3 is a cross-section. Fig. 4 is a top view of part of one of the track-sections. Fig. 5 is a cross-section of that in Fig. 4. Fig. 6 shows a modified bracket. Fig. 7 is a perspective of one of the track-suspending bars.

In the drawings, A A represent the sections of the track. These sections may be of any suitable length. I prefer to manufacture them of several lengths, from six feet up to twelve feet. These sections A are formed with a horizontal plate, *a*, and vertical webs or flanges *a'*. These sections are joined together by short plates B, which are situated between the flanges *a'*, and are bolted or riveted to the parts *a*.

The track has holes a^2 formed in the plates *a*, these holes being either oblong, oval, or of some shape adapted to attain the ends at which I aim. As shown, they are oval, the longer axes being on the longitudinal line of the track and the shorter axes on the transverse lines.

The track is suspended from the rafters or beams of the barn or other structure as follows: C C represent track-suspending devices, each consisting of a bar having a shank part, *c*, head *c'*, and an eye, c^2. The heads *c'* are in cross-section, of a shape corresponding to that of the aforesaid apertures a^2, so that they can be passed through the apertures, and they, after being turned part of the way round, engage with the under side of the track-sections A. The axes of the eyes c^2 are transverse to the long diameter of the heads *c'*, so that said axes shall lie parallel to the track after the eyebolts have been turned into their engaging positions. The apertures a^2 and heads *c'* can be of any other suitable shape, so long as they are adapted to effect the desired interlocking, the efficiency of the shape shown arising, mainly, from the fact that it is non-circular.

D represents the hanger bar or rod which forms an intermediate support between the track and the rafters or the hangers (to be described below) secured to the rafters. This, too, may be made in several sections. The sections are preferably of about the same length as the track-sections; but it is not essential. After the track-suspending devices C have been inserted and turned in the way described the rod or rods D are passed through the eyes c^2, after which the eyebolts are so locked in the plates A that a permanent engagement is insured.

The rod or rods D are suspended in hangers or bracket-irons E, fastened to the rafters or beams above. These hangers or brackets may be open—that is, of the character of hooks; but I prefer to have them closed, so that there shall be no liability for the track to be disengaged from the rafters or beams. As shown in Figs. 1, 2, 3, these supporting irons or brackets are V-shaped, and there may be as many of them employed as preference or circumstances dictate.

When closed brackets or supporting-irons are employed, the rod D can be inserted into them or withdrawn therefrom readily at the same time that it is being passed through the

eyes c^2. By the use of such rods as that at D, I provide an intermediate support between the track and the hangers, by which I can readily hang the track without regard to the distances between the rafters or beams; and, moreover, I secure a much stronger track with a less weight of material than is incident to those now in use.

It will be seen that other ways of uniting the parts together can be employed without departing materially from my invention. The track-suspending devices may be secured to the track-pieces, or they may be fastened with nuts, or even riveted; but I prefer the manner of constructing and connecting them shown, as the whole of the apparatus can be finally completed at the factory, and can be easily set up or taken down without the use of tools or the liability of small parts, like nuts, &c., being lost or displaced.

I do not limit all the features of the invention to the use of brackets or hangers, of the character shown, supplemental to the rafters or beams, as other ways of attaching the supports D, now well known, will readily suggest themselves to those acquainted with such devices as that herein. When the supports D are arranged as shown, they are substantially horizontal and parallel to the track A, and when so arranged the intermediate suspending devices C can be placed at one point or another at option.

It is not necessary herein to describe in detail the car or carrier, or the means of operating it, either at the end where the load is received or at the point where it is dropped. A bumper or stop of any of the ordinary forms can be combined with the track and arranged to be attachable thereto at any necessary point.

I provide a single bar-track, and suspend it from the roof in a simple but effective way, providing an apparatus which is independent of the special structure from which it is to be suspended, and one whose parts are simple in construction and readily joined together or separated.

The track proper, A A, can be inverted, if desired—that is, the flanges may be situated to extend upward, instead of downward, the wheels of the car being made to fit. The track may be formed with the described features at one operation, as in rolling, or the groove a^3 between the flanges a' can be subsequently cut, and the same is true as to the apertures a^2; but the other features of the invention can be employed, even if the track part proper be of a modified form.

I herein speak of some of the parts as being connected together "loosely" and "detachably," thereby meaning that they are united in a manner to be distinguished from that followed when use is made of nuts, bolts, rivets, &c., and that they can be separated without requiring the removal or detachment of any such small fastening devices supplemental to the main parts of the apparatus.

What I claim is—

1. In a track for hay-carriers, the combination, with the track-bar A and the hangers or brackets E, of the supports D, above and substantially parallel with the track, and the suspending devices C, loosely connected to and detachable from both the said supports D, and the track-bar A, substantially as and for the purposes set forth.

2. The combination, with the track-bar, of the supports D, above and substantially parallel with the track, the suspending devices which connect the track to supports D, and means, substantially as described, above the supports D, for holding them, as set forth.

3. The combination, with the track-bar and the supports D, arranged horizontally, of the suspending devices C, each having an expanded head, c', engaging loosely with the track-bar, and an eye, c^2, engaging loosely with the said supports D, substantially as set forth.

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

HENRY FISHER.

Witnesses:
J. P. FAWCETT,
VINTON F. PORTER.