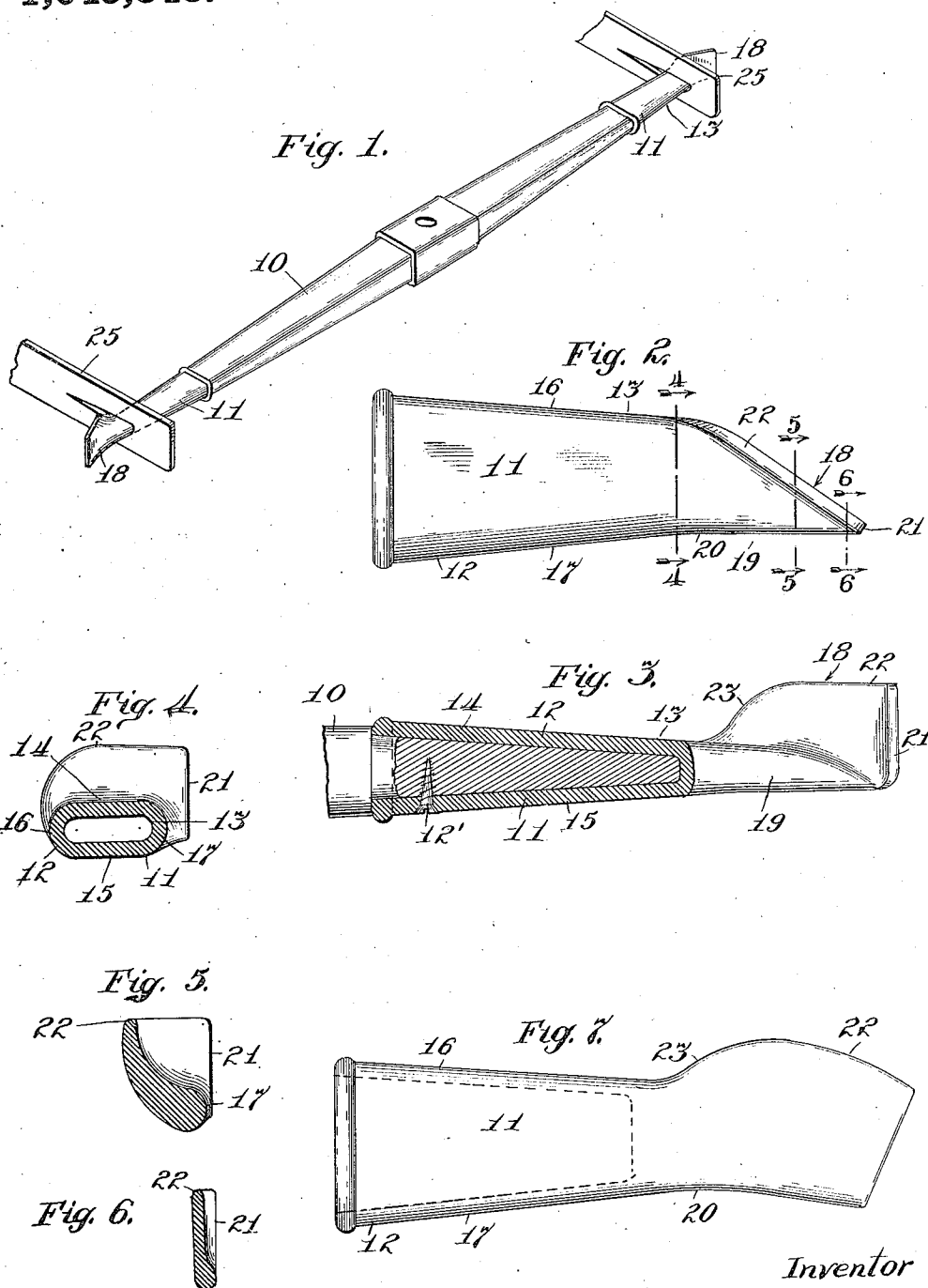


J. C. JAMES.
TRACE HOLDER STRUCTURE FOR SWINGLETREES,
APPLICATION FILED DEC. 18, 1911.

1,045,848.

Patented Dec. 3, 1912.



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UNITED STATES PATENT OFFICE.

JOSEPH C. JAMES, OF ANTIOCH, ILLINOIS.

TRACE-HOLDER STRUCTURE FOR SWINGLETREES.

1,045,848.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed December 18, 1911, Serial No. 666,453.

To all whom it may concern:

Be it known that I, JOSEPH C. JAMES, a citizen of the United States, residing at Antioch, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Trace-Holder Structures for Swingletrees, of which the following is a specification.

My invention relates to improvements in trace holder structures for swingle trees, and has for its general object to provide a simple, strong, efficient construction to provide for the easy connection and positive retention of a trace or tug in relation to the swingle tree.

In the drawing, wherein I have shown an embodiment of my invention; Figure 1 is a perspective view of the swingle tree with the trace ends attached thereto. Fig. 2 is a plan view of the trace holder. Fig. 3 is an edge view thereof. Figs. 4, 5 and 6 are sections on lines 4-4; 5-5, and 6-6 respectively of Fig. 2. Fig. 7 is a plan view showing the contour of the trace holder when flattened to a plane.

Referring to the drawing, 10 indicates the body of the swingle tree, and 11-11 indicate in general the end member thereof. These may be wood integral with the swingle tree but preferably they are made of metal as a detachable part. Each end member 11 provides a body 12, preferably of flattened ovate contour in cross section, fitted on a reduced end portion of the wood 10, and secured thereon as by a screw 12'. The body 12 tapers to a throat 13, the upper and lower surfaces 14 and 15 of the body (preferably substantially flat) and the front and rear edges, 16 and 17 thereof (preferably substantially straight) converging to minimum separation at the throat. Beyond the throat is provided a head, generally indicated at 18. The rear edge 19 of the head 18 is preferably an effective continuation of the rear edge 17 of the throat, preferably set somewhat oblique to the line of the edge 17 to form a slightly reentrant angle 20 to assist in insuring retention of the trace. The end extremity 21 of the head lies preferably in substantially a straight vertical line at the extremity of edge 19 and extending upward to a considerable distance above the top face 14 of the throat. The upper edge 22 of the head extends longitudinally substantially parallel with the bottom surface 15 of the structure, and diagonally forward,

as shown in Fig. 3, near the front edge of the structure and then descending as at 23, in a relatively abrupt, curved shoulder which merges into the front edge 16 of the throat. The surface between the front and rear edges take a spiral twist from horizontal on the section line 4-4, where they merge into the top and bottom surfaces of the throat, to vertical, (see Fig. 6,) where they terminate at the end 21 of the head, said surface being widest on the line of juncture of shoulder 23 and top edge 22 of the head. Thus in general the head surfaces of the holder take the form shown in Fig. 7, tapering along line 22 from a maximum width at the juncture of the edges 22-23 to the extremity 21 and shouldered rather abruptly as at 23, said head being given a quarter twist on the rear edge line 19 as an axis to bring the edge 21 vertical. The trace 25 is slipped on to the holder with its usual slot held vertically to slip over the vertical end 21, the twist in the head bringing the trace to its proper flat position as it is slipped past the shoulder 23 on to the throat 13.

The structure described is adapted to receive any ordinary trace, and while making easy the intentional application or removal of the trace with respect to the swingle tree end, such structure positively prevents accidental slipping off of the trace however severe the strain, the position of the trace when in use being just at the juncture of the throat and head where movement of the trace toward the end is opposed by the shoulder 23, and where the trace lies in the slight reentrant angle 20, preferably formed at the juncture of the rear edges of the throat and head.

What I claim is;

1. A trace holder having a throat and head, the rear edges of the throat and head merging on a continuing horizontal line, and the head having a quarter twist with the rear edge as the axis on which the twist is made.

2. A trace holder providing a throat portion and a head portion, at their rear edges forming a continuing horizontal line, the head providing a twist from horizontal position at its juncture with the throat to vertical position at its end, the axis of said twist being substantially the rear edge of the head, the upper edge of said head being substantially parallel with its lower edge

throughout a major portion of its length, and merging into the front edge of the throat in a relatively abrupt shoulder.

3. A trace holder comprising a throat and
5 end having their rear edges forming a slightly reentrant angle in substantially a horizontal plane, said head portion being widened just beyond its line of juncture with the throat, and making a quarter turn upon
10 the rear edge of the head as an axis to present its extremity in a substantially vertical line, at its top edge substantially parallel to

the bottom plane of the throat and extending diagonally in plane substantially from the rear edge of the head to the front edge 15 of the throat, and merging into the front edge of the throat in a relatively abrupt curve.

In testimony whereof I hereunto set my hand in the presence of two witnesses.

JOSEPH C. JAMES.

In the presence of—

MARY F. ALLEN,

W. LINN ALLEN.

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