W. H. MINER.

PROCESS FOR MANUFACTURING DRAFT YOKES FOR RAILWAY CAR DRAFT RIGGING.

APPLICATION FILED APR. 6, 1914.

1,166,471. Patented Jan. 4, 1916.

Fig. 1

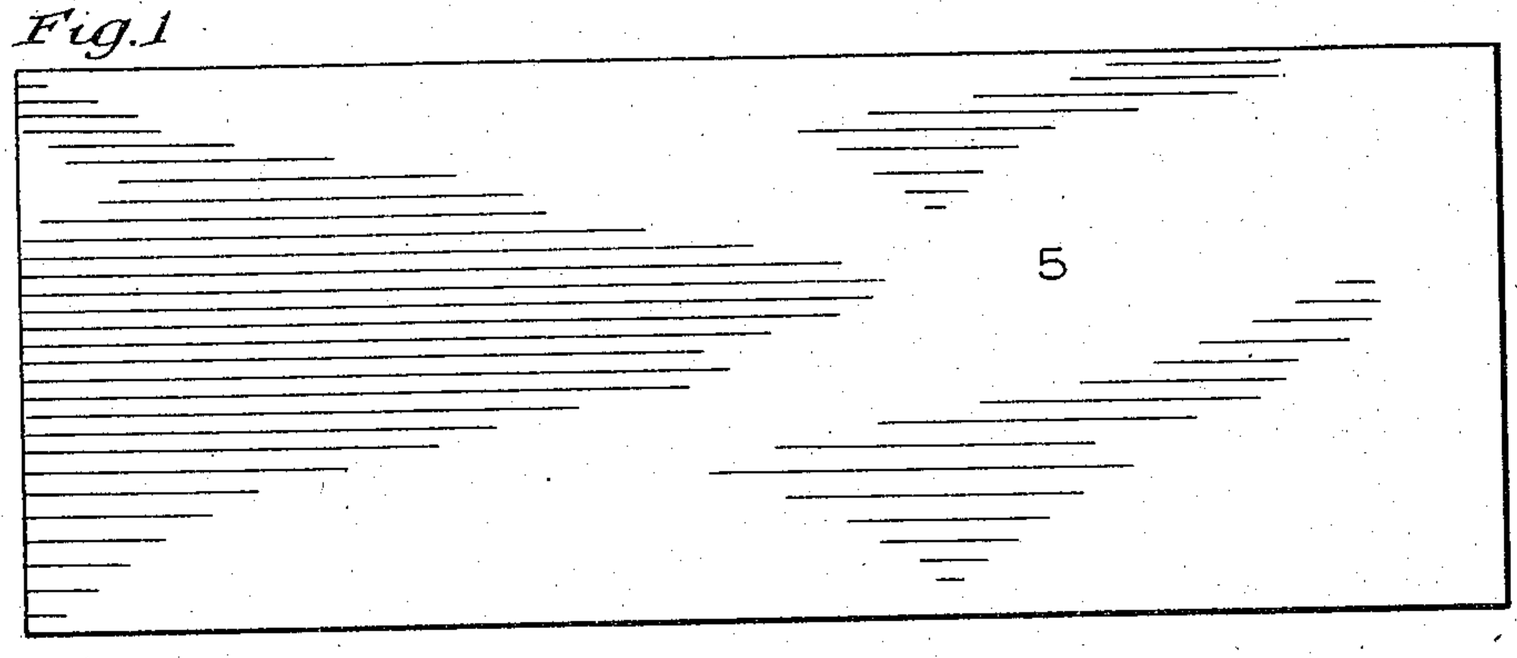


Fig. 2

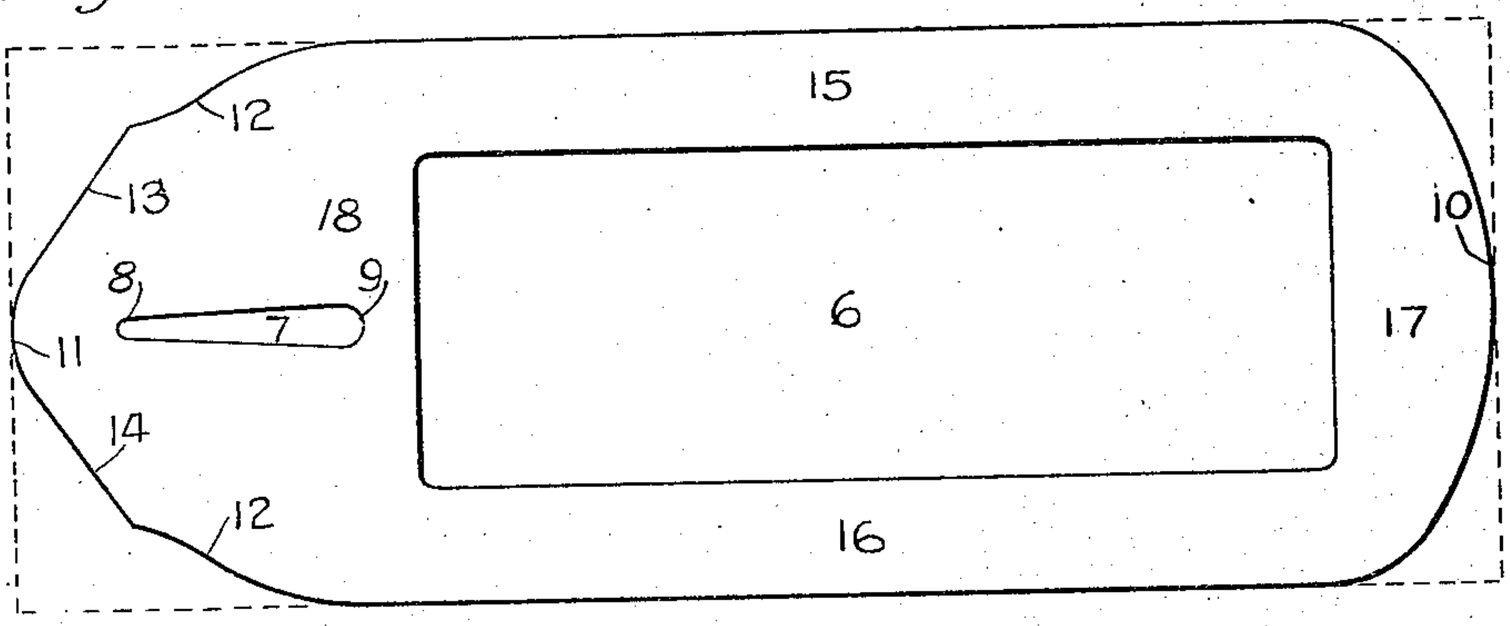


Fig. 3

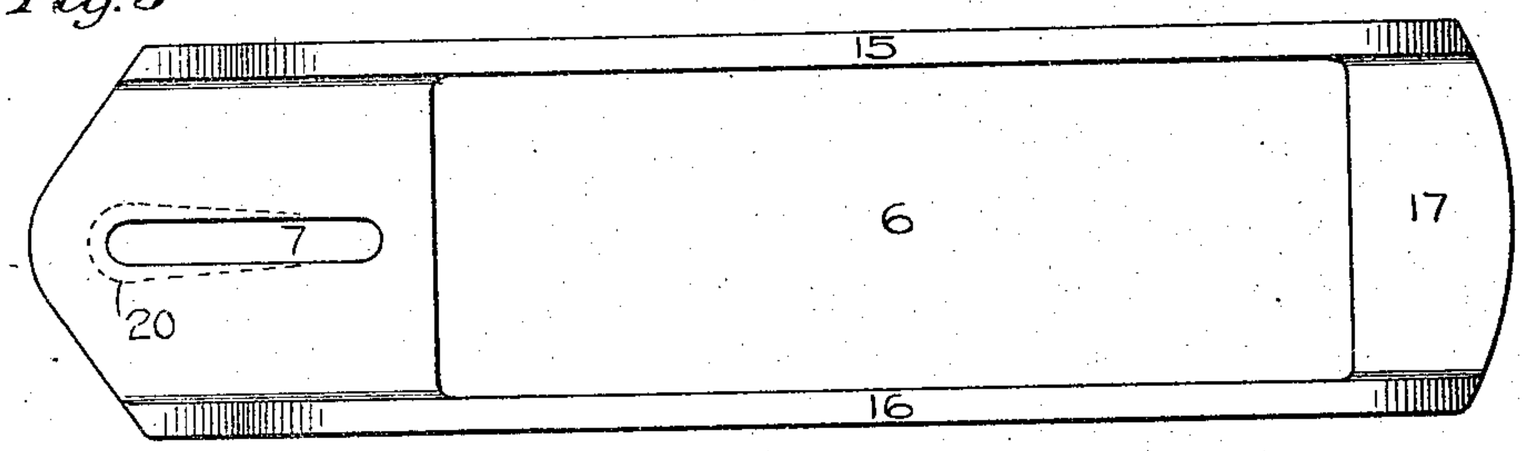
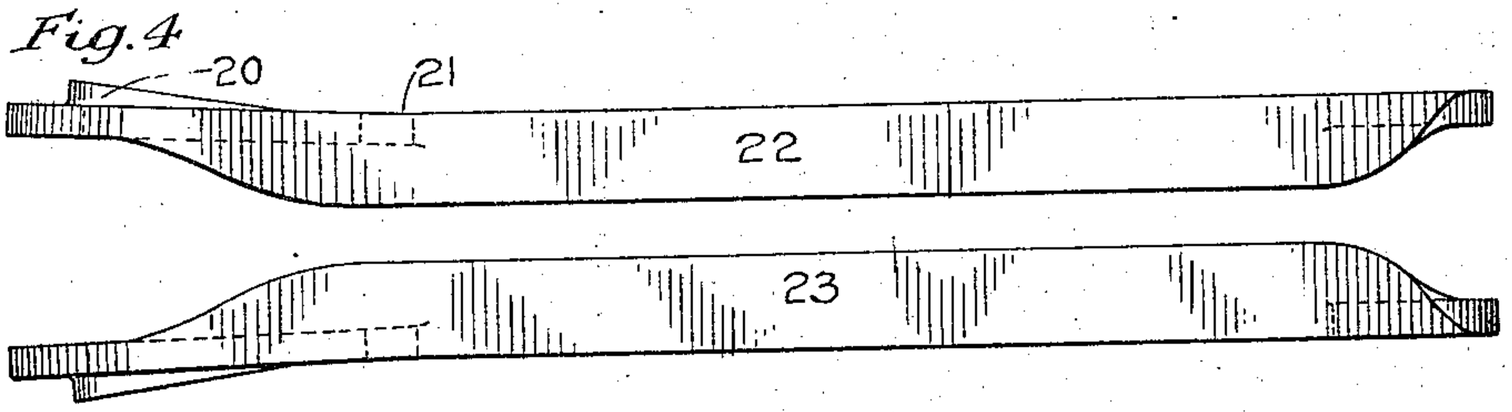


Fig. 4



INVENTOR.
William H. Miner
BY George F. Haight
HIS ATTORNEY

WITNESSES:
Wm Geiger
Carrie G. Ramy

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM H. MINER, OF CHAZY, NEW YORK.

PROCESS FOR MANUFACTURING DRAFT-YOKES FOR RAILWAY-CAR DRAFT-RIGGING.

1,166,471. Specification of Letters Patent. Patented Jan. 4, 1916.

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To all whom it may concern:

Be it known that I, WILLIAM H. MINER, a citizen of the United States, residing at Chazy, in the county of Clinton and State of New York, have invented a certain new and useful Improvement in Processes for Manufacturing Draft-Yokes for Railway-Car Draft-Rigging, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a process for manufacturing a draft yoke for railway car draft rigging.

The object of my invention is, to provide a simple and efficient process for manufacturing a draft yoke for railway car draft rigging.

In the drawings forming a part of this specification, Figure 1 is a side elevation of a piece of yoke material. Fig. 2 is a side elevation of the yoke material with a draft rigging recess and key slot stamped therefrom, and showing the conformation of the ends. Fig. 3 is a side elevation of one member of a draft yoke with the upper and lower limbs horizontally turned. Fig. 4 is a plan view of a completed draft yoke showing two parallel members in their relative operative positions.

Referring to the drawings, the numeral 5 indicates a piece of yoke material commonly known in the art as a slab, the same being preferably of steel or wrought iron, and preferably rectangular in shape. My process consists in forming in the said yoke material a preferably rectangular opening 6 adapted to receive a draft gear; also in forming in one end of the said yoke material a substantially median transverse longitudinally extended slot 7, which when completely formed is adapted to receive a coupler key. The said slot 7 is in preferable construction formed first in the shape illustrated in Fig. 2 of the drawings, that is, the forward end 8 thereof is narrower than the rear end 9. I also shape the rear end 10 of the said yoke material preferably to a general convex form as illustrated in Fig. 2 of the drawings. The forward end 11 of the yoke material is, by shearing or other similar suitable methods, shaped to a general convex form, the outer portions of the convex end presenting preferably an edge having a reverse curve, as illustrated at the numerals 12—12 in Fig. 2 of the drawings. The intermediate portions of the edge so formed are preferably straight edges, the upper one 13 terminating substantially at the median line of the yoke, and the lower one 14 terminating substantially at the same point. The straight portions 13 and 14 are preferably tangents to a circle, the center of which is within the slot 7 and between the ends 8 and 9 thereof. The forming of the two ends of the yoke and the making of the key slot and draft gear opening therein, is preferably done in one stamping operation. The member thus formed is one having an upper limb 15, a lower limb 16, a rear connecting member 17, and a front slotted connecting member 18. The members 15 and 16 are then bent preferably a 90 degree angle until the said limbs 15 and 16 are both extended in the same direction, and substantially at right angles, to the connecting members 17 and 18. This turning of the members or limbs 15 and 16 is preferably done by forging.

While the forming of the yoke material into the shape illustrated in Fig. 2 of the drawings, and then into the shape illustrated in Fig. 3, may be done by one operation, I prefer to shape the material into the form as illustrated in Fig. 2 of the drawings in one operation, and then to forge the material into the shape illustrated in Fig. 3 by a succeeding operation. The key slot 7 in the yoke material is enlarged at its forward end 8 by forcing outwardly, preferably through forging the material forming the front end of said slot, and the edges thereof, for a portion of the length from the front end to the rear end of the slot, forming a shoulder 20, as illustrated in Fig. 4 of the drawings, and shown by the dotted line at the numeral 20 in Fig. 3 of the drawing, thus giving a large bearing for a coupler key, and making the upper and lower edges of the slot 7 substantially parallel. Also, the forward end of the material is turned outwardly, preferably from a point substantially on line with the rear edge of the connecting member 18, as indicated at the numeral 21 in Fig. 4 of the drawings, to permit lateral movement of the draw-bar while mounted in connection with the yoke. Though the shape of one yoke member 22, illustrated in Fig. 4 of the drawings, may be given the yoke material 5 in one operation, we prefer, after the forming of the

material into the shape illustrated in Fig. 2, to turn the limbs 15 and 16, and to form the shoulders 20 about the coupler key slot and to bend the forward end of the limb 22 outwardly in a second operation. A second limb 23 is formed in the same manner as is the limb 22, and the two when placed substantially parallel form a draft yoke having the transverse opening 6 to receive a draft gear, and the transverse slots 7 to receive a coupler key, which is adapted to pass through a draw-bar mounted between the forward ends of the limbs 2 and 23 of the draft yoke.

I claim:—

1. The herein described process of manufacturing yokes for railway draft riggings which includes, cutting sections from a blank to form a key slot near one end thereof and an elongated rectangular opening at the rear of the key slot, then bending the cut blank along lines paralleling the longest edges of said rectangular opening to thereby provide flanges substantially at right angles to the main portion of the blank.

2. The herein described process of manufacturing yokes for railway draft riggings which includes, cutting sections from a blank to form a tapered key slot near one end of the blank, the tapered slot having its narrowest portion near the front end of the blank, cutting an enlarged rectangular opening in the blank at the rear of the key slot, bending the cut blank along lines paralleling the longest edges in said rectangular opening to thereby provide flanges, and forging the metal around the key slot to thereby open up the same and form the key slot of uniform width throughout and provide a strengthening rib around the forward portions of the key slot.

WILLIAM H. MINER.

Witnesses:

CARRIE G. RANZ,

ELIZABETH BRITT.