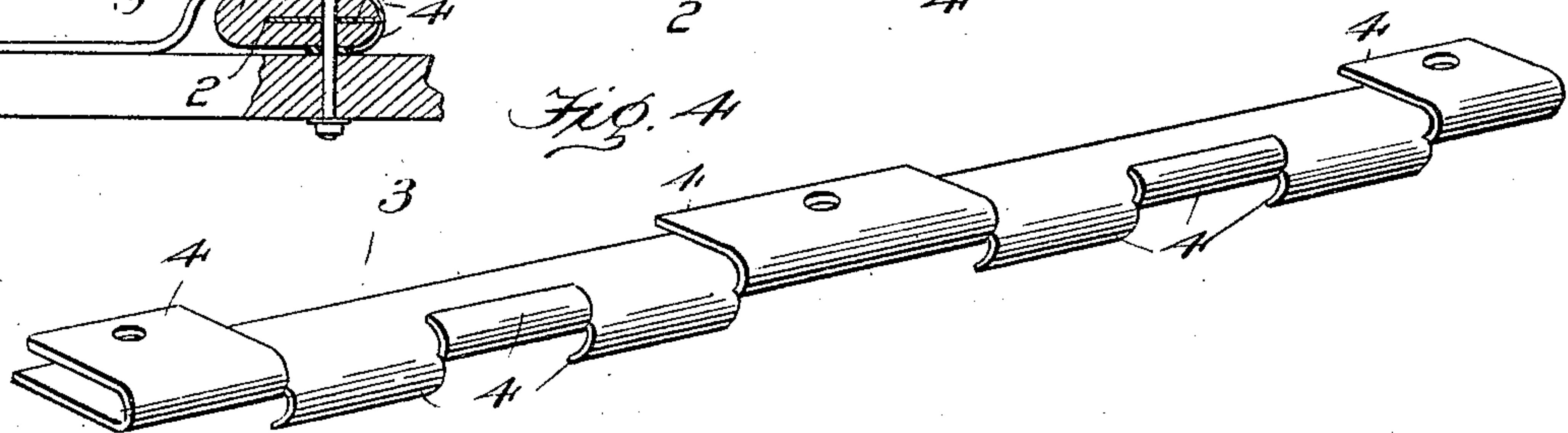
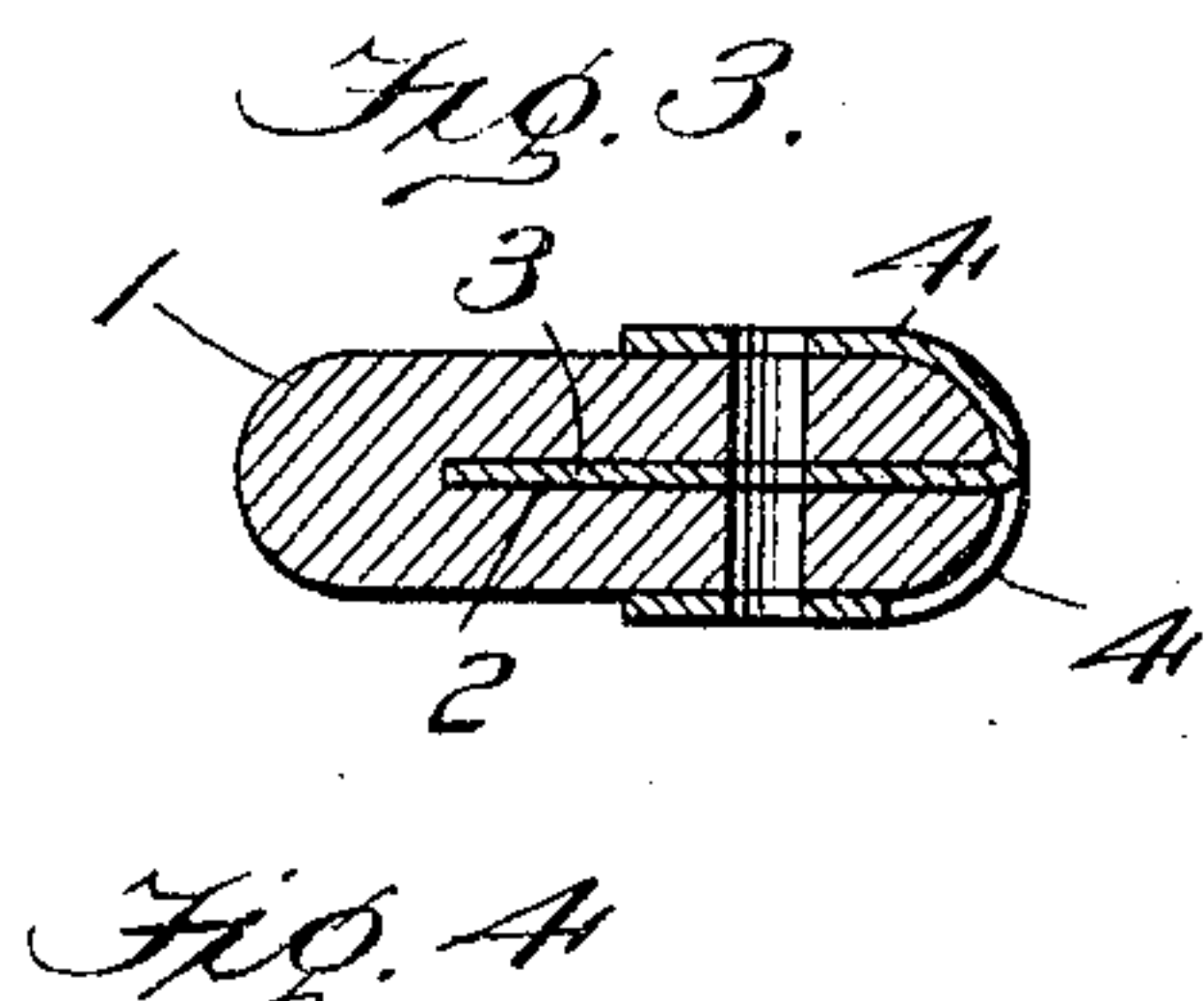
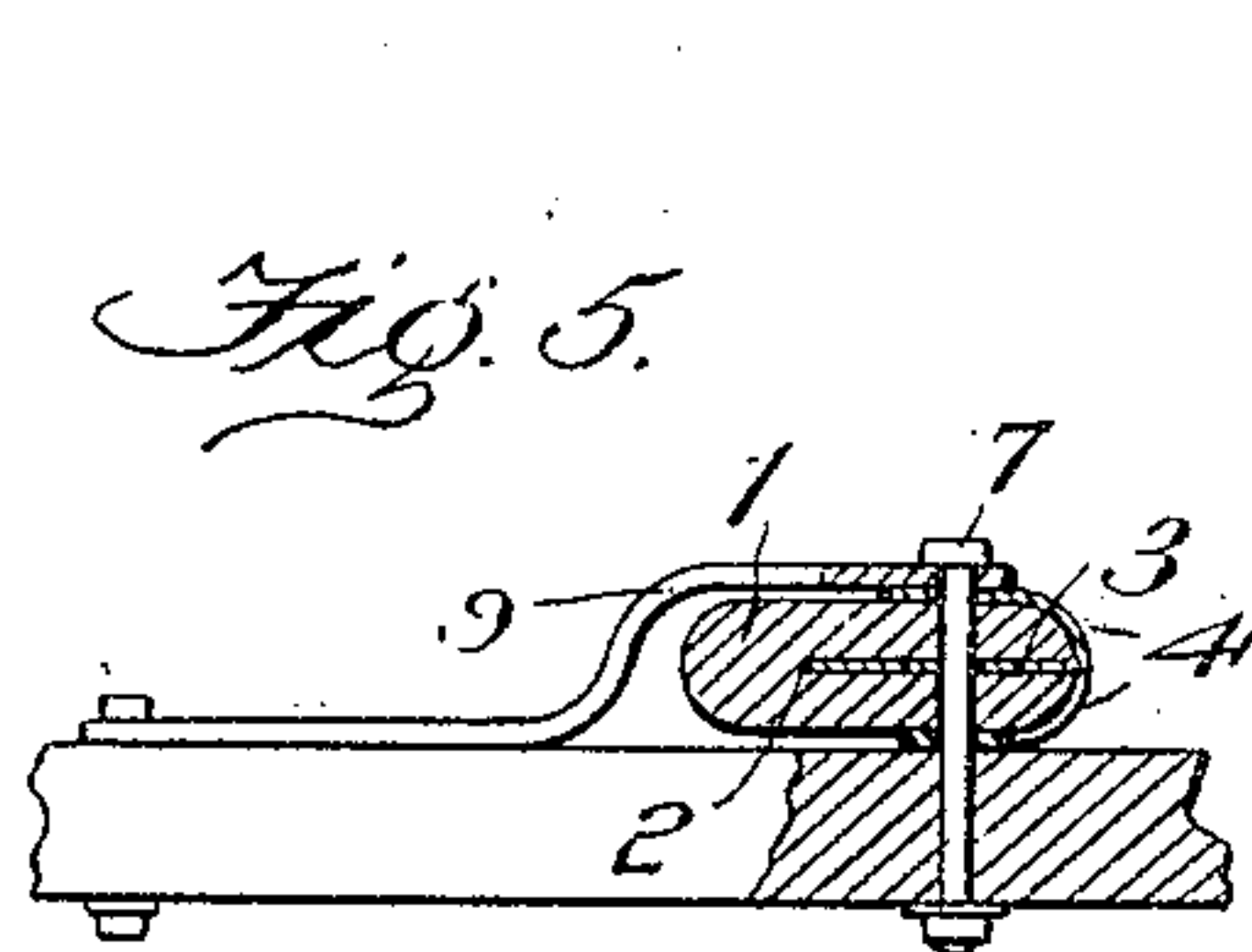
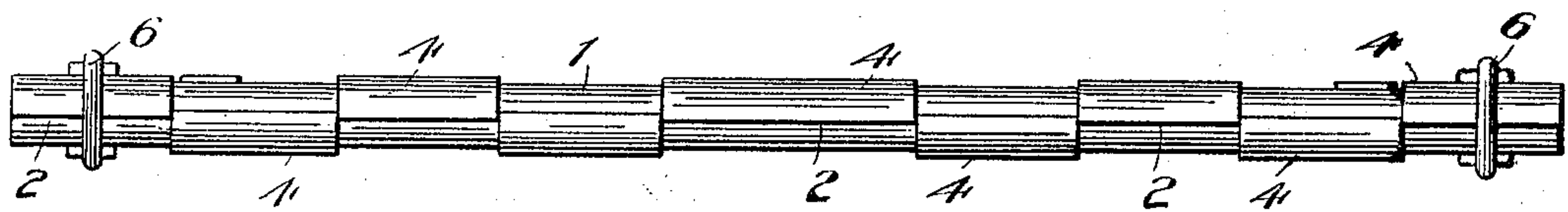
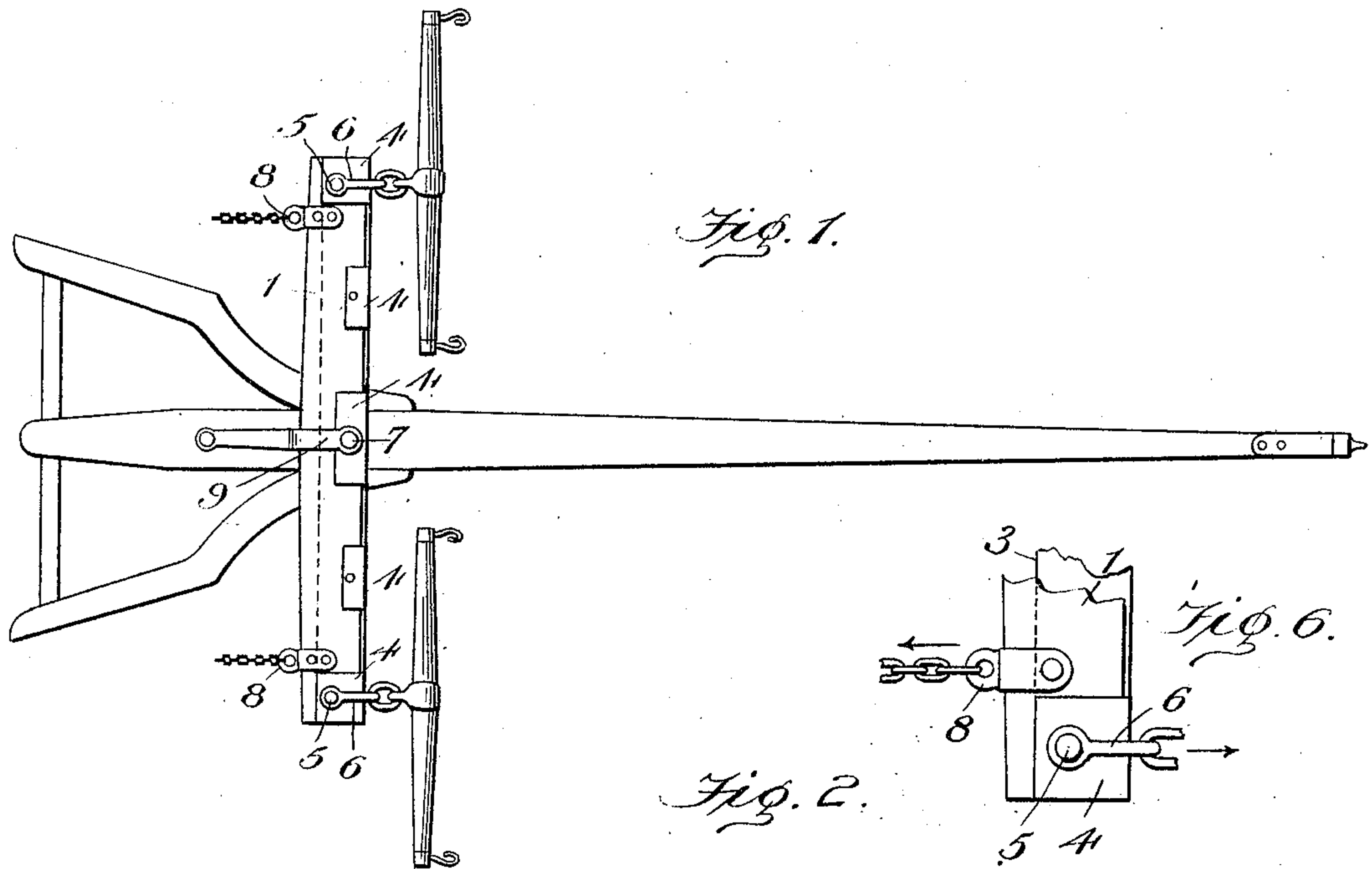


No. 798,245.

PATENTED AUG. 29, 1905.

F. G. WINNEK.
DOUBLETREE AND WHIFFLETREE.
APPLICATION FILED MAR. 23, 1905.



Witnesses
Edwin L. Bradford
Anne B. Johnson.

Inventor
Frederick G. Winnek
By *Johnson & Johnson*
Attorneys.

UNITED STATES PATENT OFFICE.

FREDERICK G. WINNEK, OF DEARBORN, MISSOURI.

DOUBLETREE AND WHIFFLETREE.

No. 798,245.

Specification of Letters Patent.

Patented Aug. 29, 1905.

Application filed March 23, 1905. Serial No. 251,555.

To all whom it may concern:

Be it known that I, FREDERICK G. WINNEK, a citizen of the United States, residing at Dearborn, in the county of Platte and State of Missouri, have invented certain new and useful Improvements in Doubletrees and Whiffletrees; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My improvement in doubletrees and swingle-trees is designed to increase the durability with the advantage of making them of cheaper grade of wood and much stronger than if made of hickory or oak, providing thereby a new article of manufacture for draft, and in the claims appended hereto I will point out the improvement in connection with the accompanying drawings, in which—

Figure 1 shows in top view a doubletree embodying my improvement. Fig. 2 is a front edge view. Fig. 3 is a cross-section of the same. Fig. 4 shows the steel reinforcing-bar with its alternate edge laps. Fig. 5 is a cross-section through the hammer-strap, showing the center bolt passing through the reinforcing-plate and its side lap, so that the strain of the hammer-strap bolt is upon the middle plate and its side lap. Fig. 6 shows, enlarged, the end of the doubletree and the clevis and stay-chain eye, both secured to the reinforcing-plate and pulling upon it in opposite directions.

By my improvement the doubletree 1 can be made of comparatively cheap wood because of the provision whereby it is reinforced and made strong. For this purpose the bar has a groove 2 cut in its front edge throughout its length about three inches deep and into which is driven a steel plate 3 about an eighth of an inch thick, having its outer edge cut or slit to form transverse laps 4 at intervals and about one inch deep. These cut parts 4 are bent over alternately and clenched to the opposite sides of the bar, strongly binding the grooved parts upon the plate and preventing them from spreading, twisting, or buckling. I prefer to extend the cut lapping parts of this reinforcing-plate at each end and at the middle of the bar, so that the pins 5, which secure the clevis 6 and the middle draw-bolt 7, by which the doubletree is secured to the tongue, will pass through the laps and through the wood and through the body of the plate, thus giving the doubletree

the greatest strength at the points needed. The eyes 8 for the stay-chains are also riveted through the bar and its reinforcing-plate at the rear edge of the bar, and this secures the plate within the groove at each end of the bar from its rear edge and holds the wood firm to the steel bar. With the middle draw-bolt passing through the bar, the embedded plate, and through its lap on the outer side of the doubletree a double reinforcement is provided for the bar at the point where it is subjected to the greatest strain, while the clevis-pins passing through the bar, the embedded plate, and through its external side lap provide double reinforcement at each end of the bar, so that the draft strain is borne by the plate and distributed through the bar.

It is important to note that the draft of the swingletrees upon the clevis-pins is transferred to the center bolt and its hammer-strap 9 and that the eye-clips riveted to the bar and to its embedded plate make strong hitches for stay-chains, which are connected to the axle, so that the clevis-pins draw upon the steel plate to the front, while the stay-chains draw upon the plate to the rear, and therefore there is no direct strain upon the wood. The reinforcing-plate allows the draft-pins and bolt to be secured directly through the bar, and thereby dispense with the usual end and center bolt binding-bands around the bar.

This construction provides a strong double-tree or whiffletree without the lapping plate-flanges; but their use renders each lap a brace to the grooved wood parts and increases the strength of the bar. The reinforcing-plate may be applied to the swingletrees in the same way. All the laps may be pinned to the wood and to the embedded plate, if desired.

I claim—

1. A doubletree for draft purposes, consisting of wood having a longitudinal groove, a reinforcing-plate embedded in said groove and having edge cuts forming laps alternately over the opposite side of the bar binding the grooved parts together, and end clevis connections, the draw-pins for the clevis, and the middle draw-bolt passing each through the wood and through the embedded plate for the purpose stated.

2. A doubletree, consisting of wood having a longitudinal groove, a reinforcing-plate embedded in said groove and having edge cuts forming laps alternately over the opposite

sides of the bar binding the grooved parts together, and end clevis connections, the draw-pins for the clevis, and the middle draw-bolt passing each through a lap of said plate,
5 through the wood and through the embedded plate for the purpose stated.

3. A doubletree consisting of wood having a longitudinal groove, a reinforcing-plate embedded in said groove and having edge-form-
10 ing laps alternately over the opposite sides of the bar binding the grooved parts together, end clevis connections, and eyes for the stay-

chains, the pins for the clevis connections, the middle draw-bolt and the pins for the stay-chain eyes passing through the wood and 15 through the embedded plate and drawing upon the latter in opposite directions.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK G. WINNEK.

Witnesses:

CH. P. HARRINGTON,
T. C. MAGERS.