

No. 691,924.

Patented Jan. 28, 1902.

J. M. WHYTE.
COMBINED TRACE HOLDER AND PROTECTOR.

(Application filed Apr. 10, 1901.)

(No Model.)

Fig. 1.

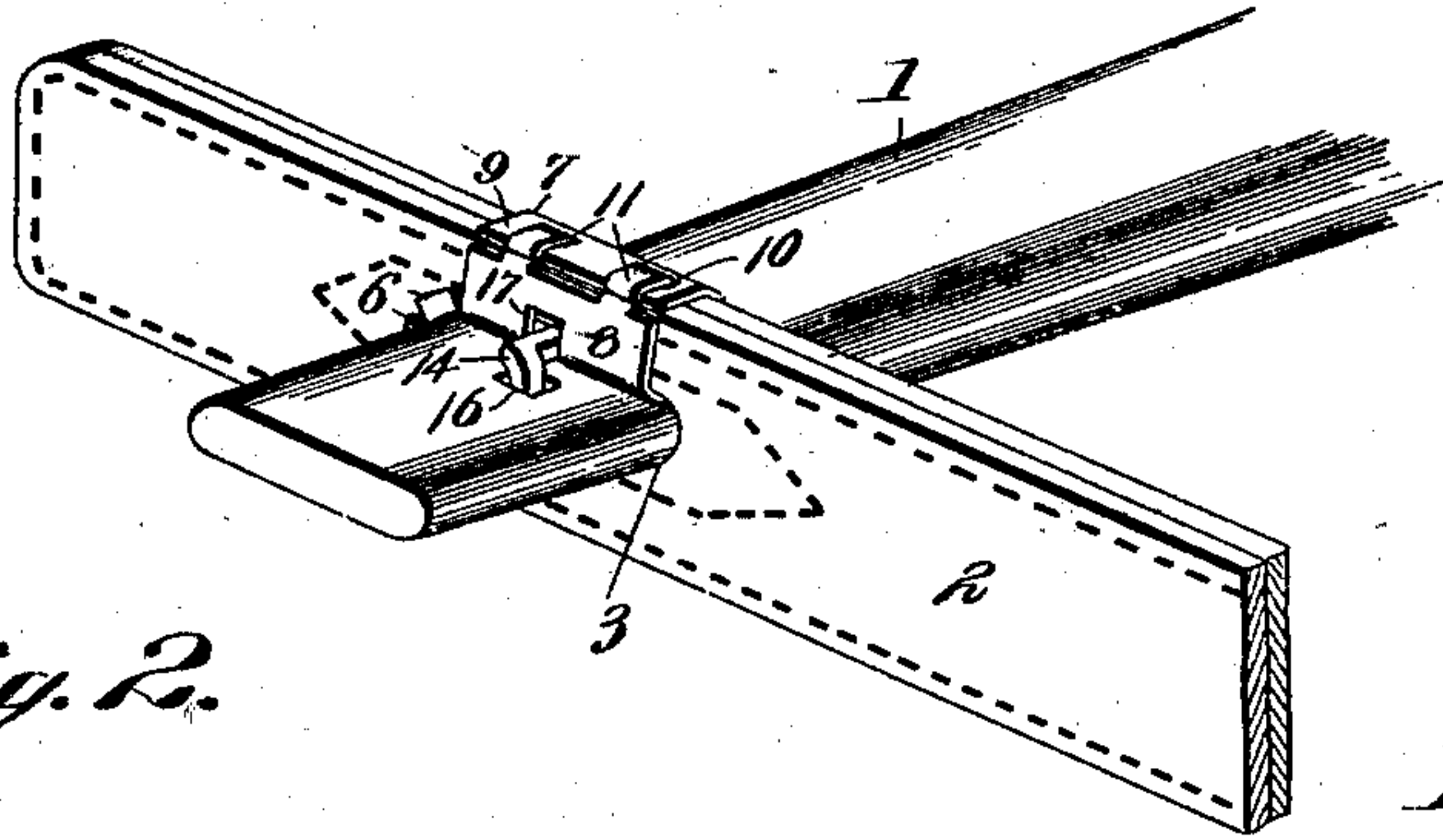


Fig. 2.

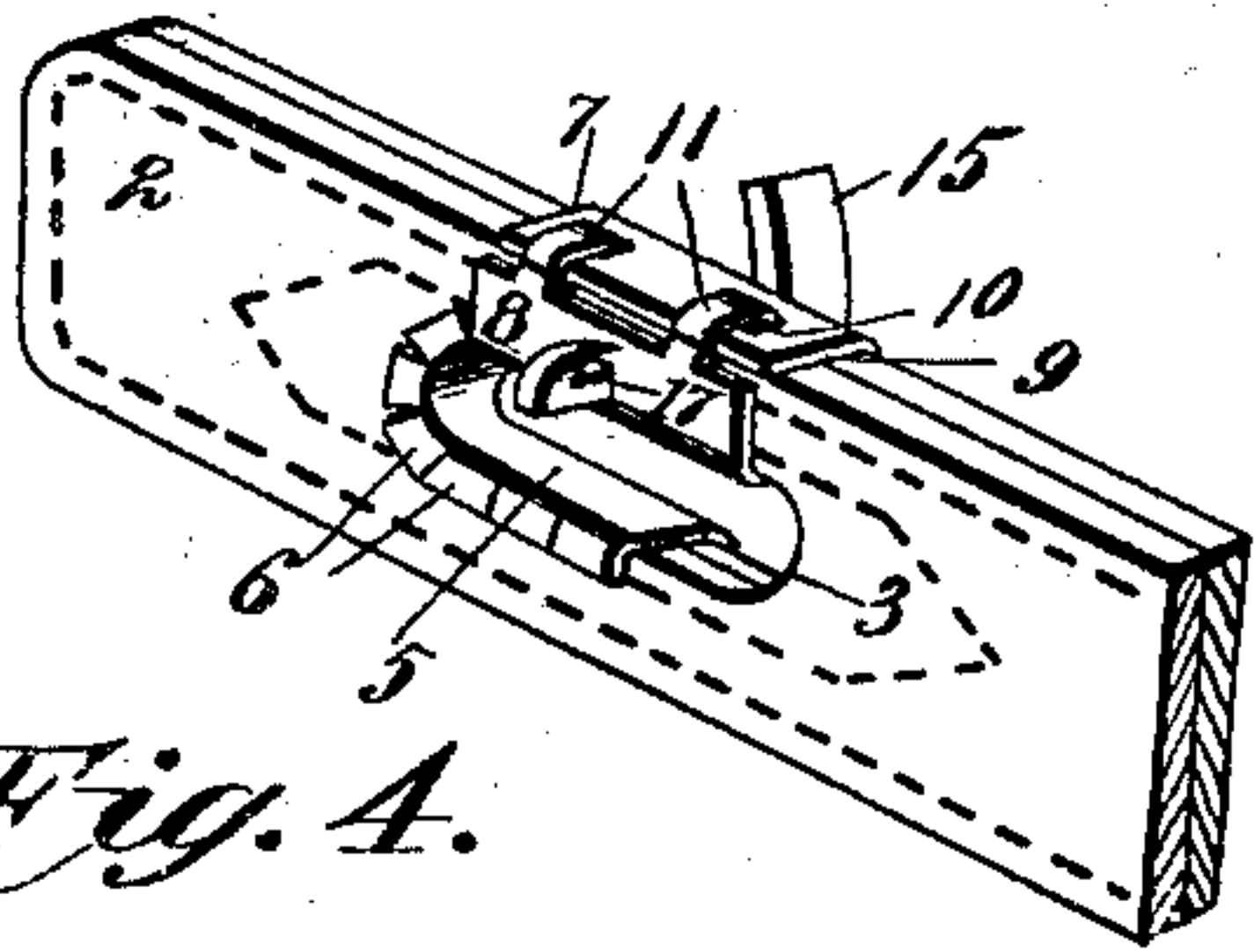


Fig. 3.

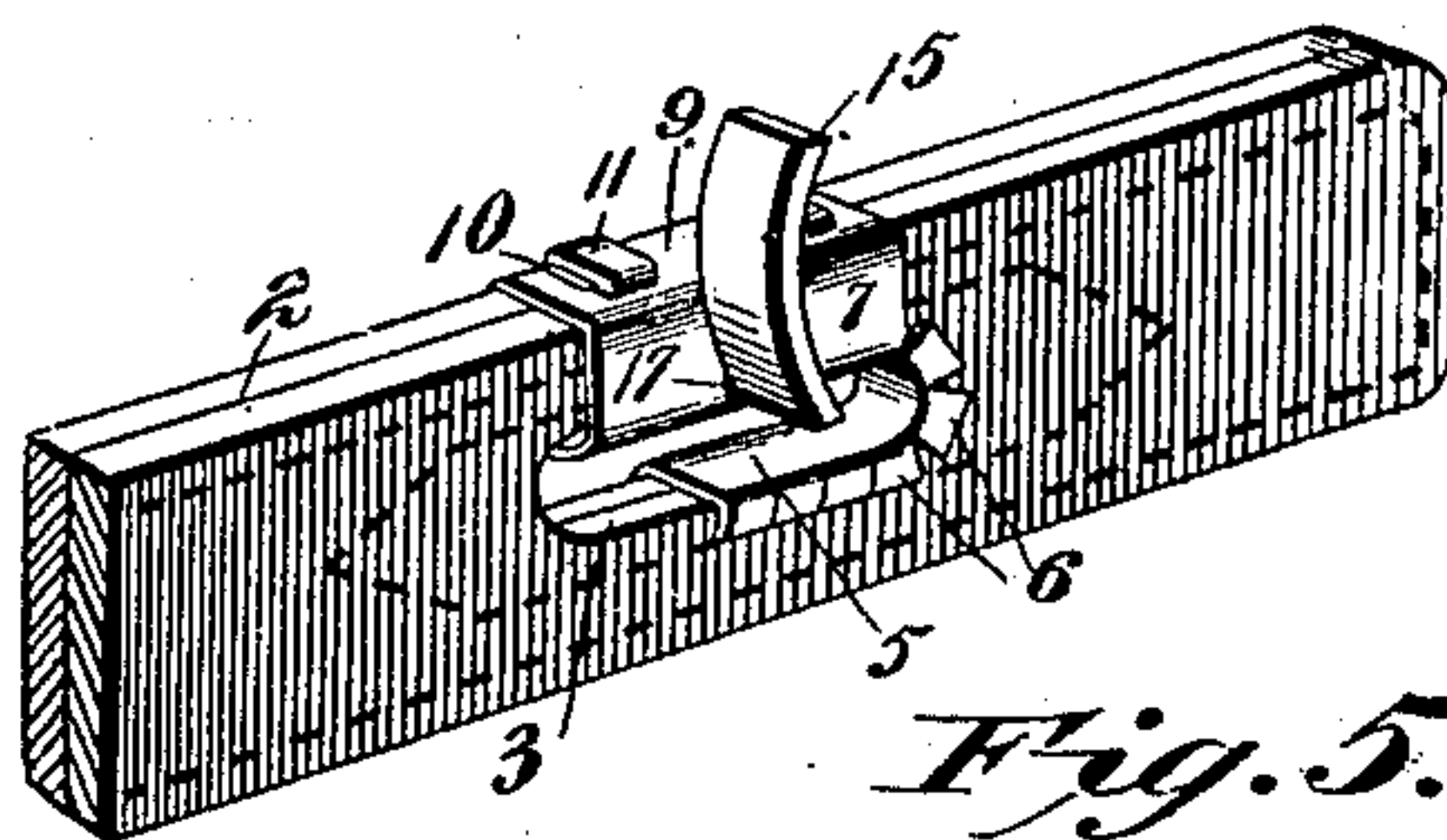


Fig. 4.

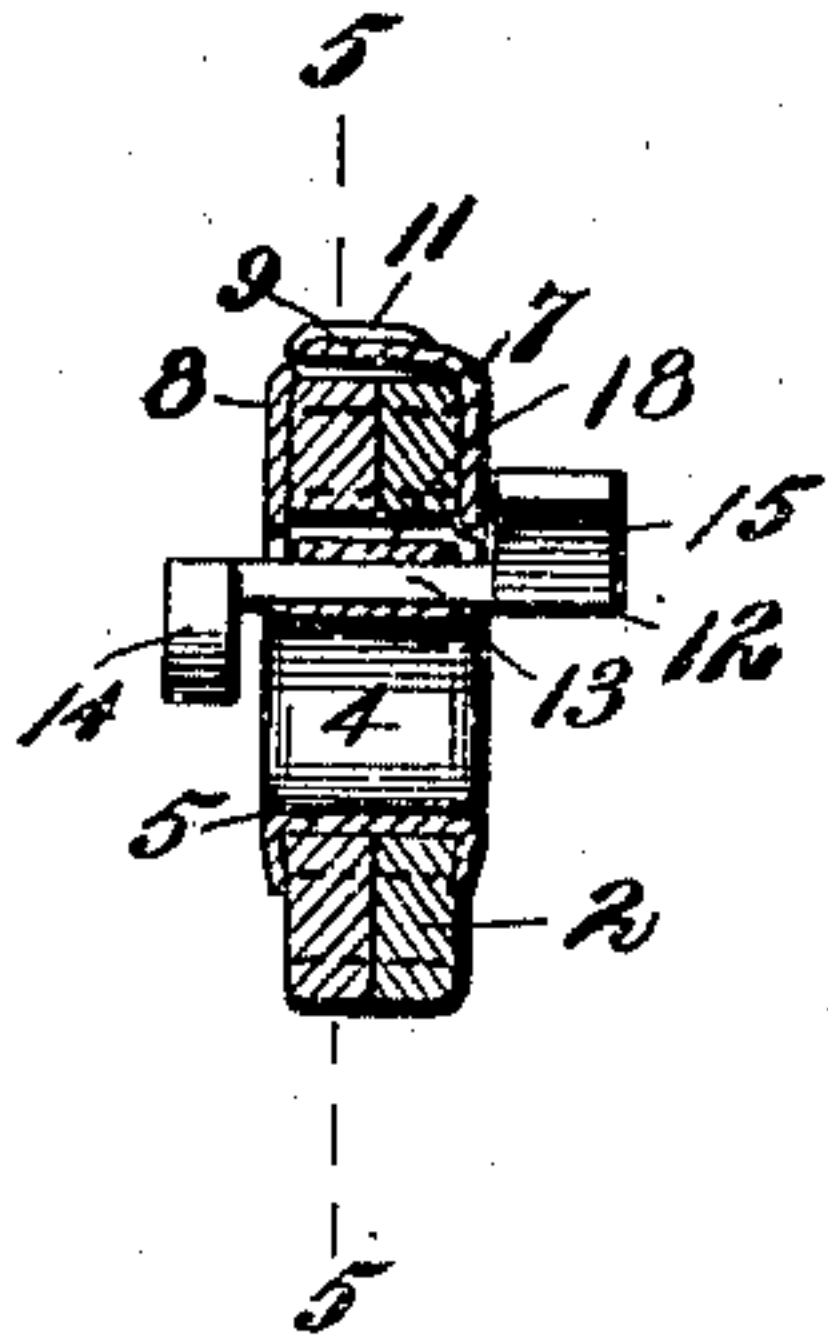


Fig. 5.

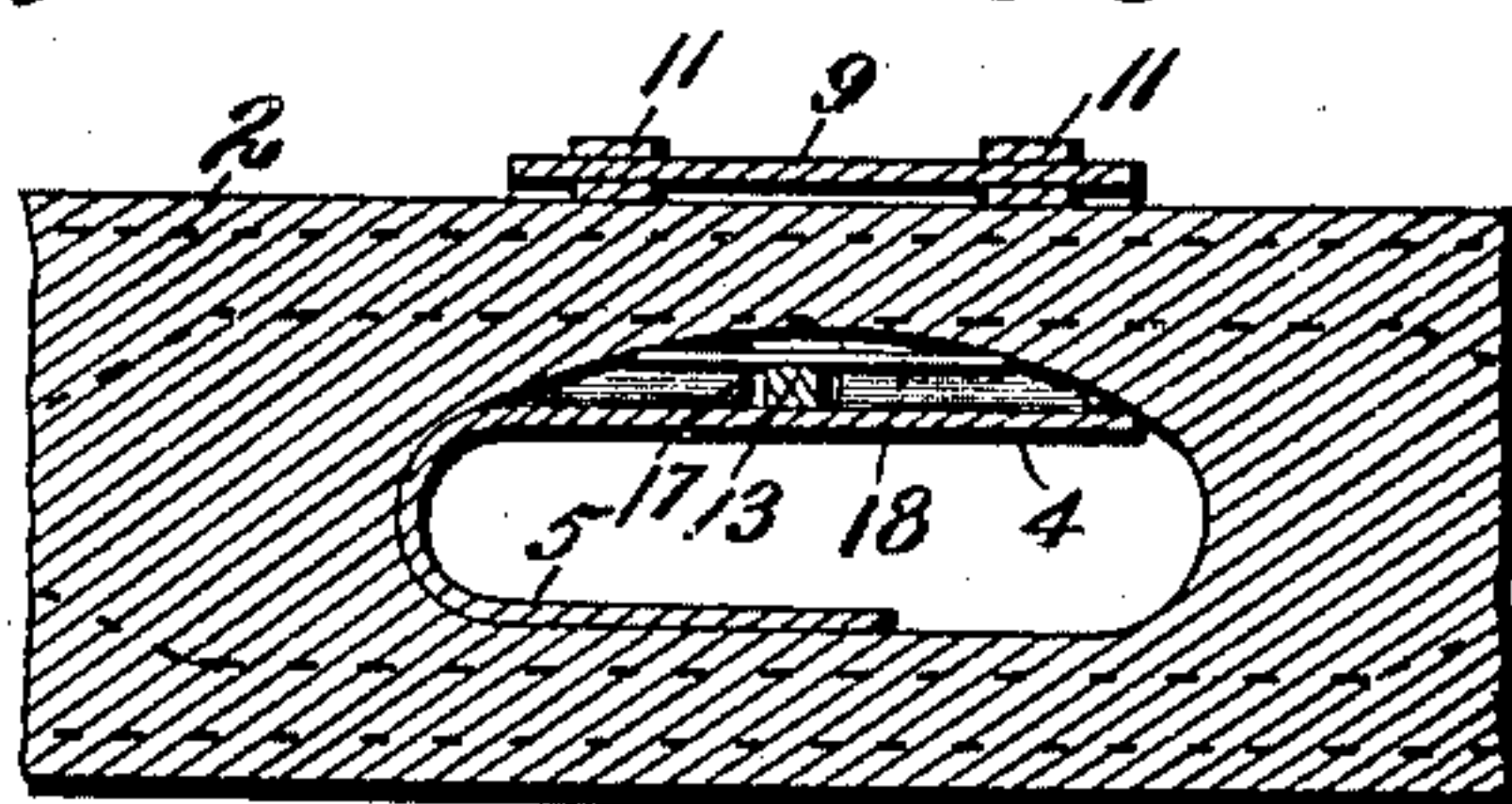


Fig. 7.

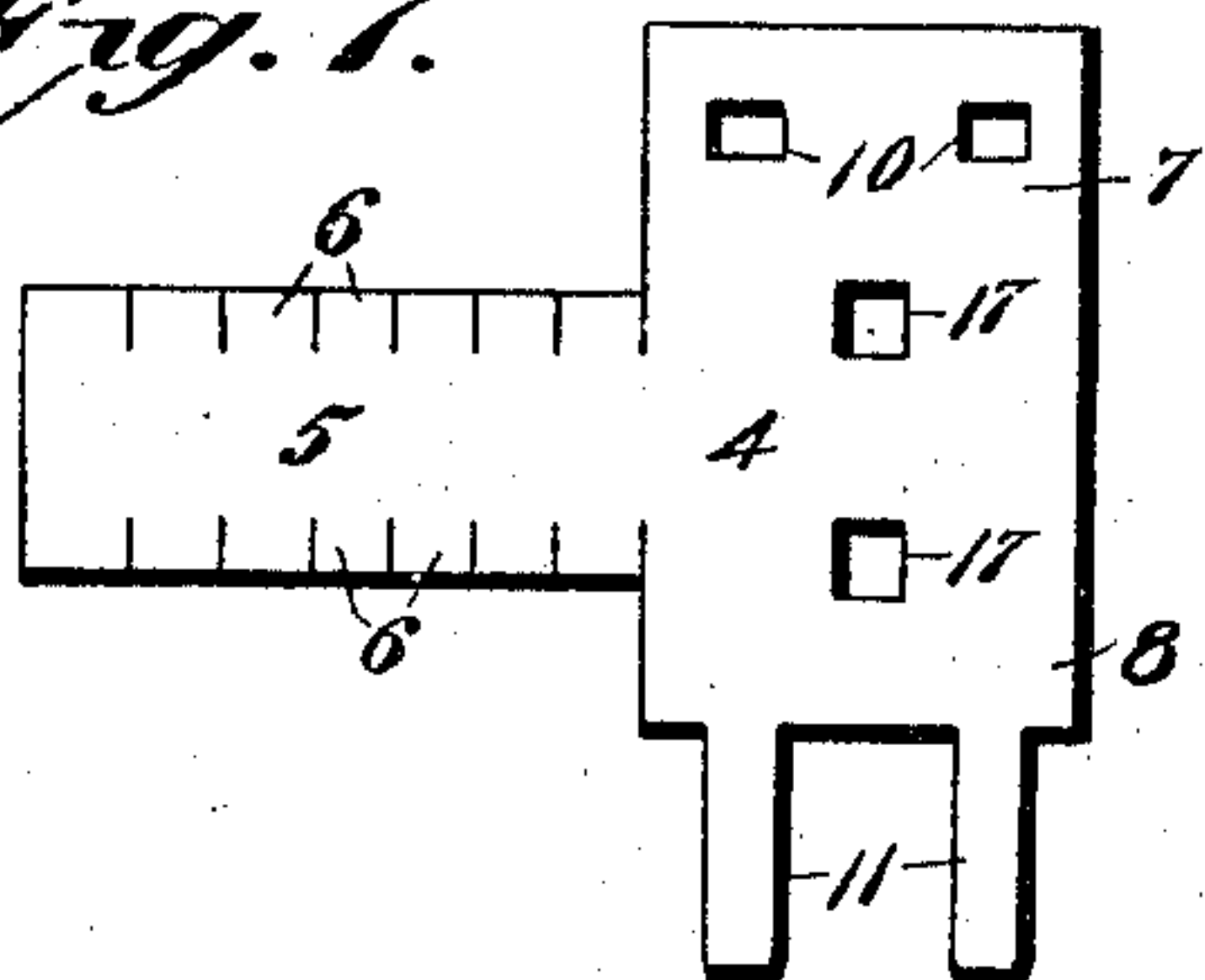
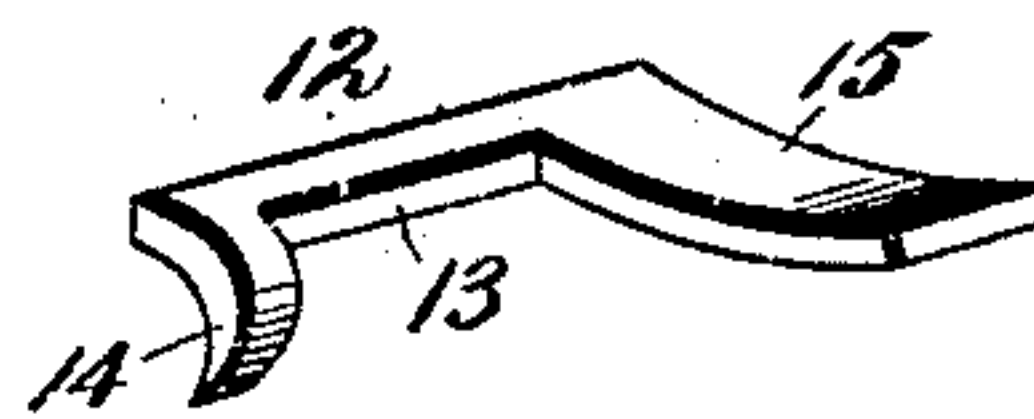


Fig. 6.



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JAMES M. WHYTE, OF PARKERS LANDING, PENNSYLVANIA.

COMBINED TRACE HOLDER AND PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 691,924, dated January 28, 1902.

Application filed April 10, 1901. Serial No. 55,140. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. WHYTE, a citizen of the United States, residing at Parkers Landing, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in a Combined Trace Holder and Protector; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as it will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to the general class of devices known as "whiffletree-connectors," and has special reference to an improved device of this character subserving the dual function of a trace-holder for effecting a secure fastening for the end of the tug or trace to the end of the whiffletree or singletree and also as a protector for protecting the eye of the tug or trace from wear, thus preserving the usefulness and strength thereof.

To this end the invention contemplates an improved trace holder and protector carried entirely by the trace or tug and comprising simple and reliable means for securely fastening the trace or tug to the whiffletree, as well as protecting the eye of the trace, especially at the draft end thereof, from the wearing tendencies incident to the pull or drag upon the trace.

A further object of the invention is to provide a combined device of the character stated applicable to the ordinary traces or tugs.

With these and many other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

The essential features of the invention involved in the provision of means carried by the trace or tug for protecting the eye thereof and also for effecting a secure fastening to the whiffletree are necessarily susceptible to considerable modification without departing from the spirit or scope of the invention; but the preferred embodiment of the improvements is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of an end portion of a whiffletree or singletree and a trace or tug connected therewith, said trace

or tug being equipped with a device constructed in accordance with the present invention. Fig. 2 is a perspective view of the device in its applied position viewing the same from one side of the trace. Fig. 3 is a similar view viewing the device from the other side of the trace. Fig. 4 is a cross-sectional view of the device as applied to the trace or tug. Fig. 5 is a detail sectional view on the line 5 5 of Fig. 4. Fig. 6 is a detail in perspective of the latch. Fig. 7 is a plan view of the sheathing-blank.

Like numerals of reference designate corresponding parts in the several views of the drawings.

In carrying out the invention no change is required in the construction of the ordinary whiffletree or singletree nor in the trace or tug, so for illustrative purposes there is shown in the drawings an end portion of an ordinary whiffletree 1 and the end portion of the trace or tug 2, which is engaged therewith, said trace or tug being provided with the usual eye 3 of the ordinary elliptical contour for properly engaging with the end of the whiffletree. In connection with these elements the present invention contemplates associating with the eye 3 of the trace or tug a protective sheathing 4, formed of sheet metal or any other material suitable for the purpose of providing a hardened wear-face inside of the eye of the trace, so as to protect the eye from wearing out in the manner common to the ordinary leather traces or tugs.

Although the protective sheathing 4 may be formed of any suitable material and also constructed in any convenient or practical manner, still the preferred embodiment of this part of the invention is shown in the drawings and consists in the said sheathing formed of a single sheet-metal blank having a main wear-stem 5 of narrower width than the remainder of the blank and curved to fit the end of the trace-eye, which receives the pulling strain of the trace or tug, said wear-stem also extending partly or entirely along the lower side of the eye 3. Different expedients may be resorted to for securely holding the main wear-stem inside of the trace-eye, although a simple construction is shown and consists in forming the stem portion 5 of the blank with a series of bendable clenching-

lips 6, adapted to be clenched into the trace at the side edges of the eye therein. In the construction shown the sheathing-blank not only completely sheathes or covers what has been characterized as the "draft end" of the eye, but also extends along the upper and lower sides of the eye, and in order to provide for effecting a secure fastening of the sheathing and also to carry out the function of the device as a trace-holder the sheathing-blank is further provided at opposite side edges thereof with the side cheek-pieces 7 and 8, respectively, preferably bent up integrally from the blank upon opposite sides or faces of the trace or tug. One of the said cheek-pieces (designated by the numeral 7) is adapted to have the upper edge thereof bent over the top edge of the trace or tug, as at 9, and is provided in such edge with one or more openings 10, which receive the pliable fastening-tongues 11, projecting from the top edge of the opposite cheek-piece 8, said tongues being passed through the openings 10 and bent back to effect a firm locking together of the cheek-pieces, and consequently very securely fastening the entire sheathing in place.

The portion of the sheathing-blank having cheek-pieces constitutes what might be properly termed a "casing" or "support" for the tree-latch 12. This tree-latch may be of different types; but in its preferred form it consists of a turning shank 13, provided at one end with a laterally-projecting curved engaging-hook 14 and at its opposite end with a laterally-extending finger-lever 15, said lever and hook 14 being preferably out of alignment, whereby there may be sufficient play for the lever to insure the turning of the hook into engagement with the keeper opening or notch 16, provided in the end of the whiffletree. To provide for the proper support of the oscillatory or rotatable tree-latch, the sheathing is provided below the plane of the upper edge of the trace-eye with the transversely-alined bearing-openings 17, which receive the turning shank 13, and thus loosely support the latch transversely with relation to the trace-eye. The turning shank 13 is consequently supported crosswise of the eye at one side edge thereof, and to insure a reliable action thereof the same is preferably square or angular in cross-section and has arranged to bear thereon a flat holding-spring 18, which is held housed within the sheathing between the cheek-pieces thereof. By bearing on the angular shank of the latch the spring will necessarily hold the same against turning when either engaged with the tree or disengaged therefrom, and will also permit the latch to have a snap action when the hook thereof is turned into engagement with the keeper 16 of the whiffletree. After slipping the trace or tug over the end of the whiffletree it is simply necessary to bear upon the finger-lever 15 to effect the engagement of

the hook with the tree. The disengagement is effected by moving the lever in the opposite direction, thus providing a very simple and practical device.

From the foregoing it is thought that the construction, operation, and the many advantages of the herein-described invention will be readily understood without further description, and it will also be understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a device of the class described, a tree-latch carried by the trace and provided with an operating member at one side of the trace, and with a tree-engaging member at the opposite side.

2. A device of the class described comprising a protecting-sheathing fitting the eye of the trace, and a tree-latch having a shank portion held between said sheathing and an edge of the trace-eye.

3. A device of the class described comprising a bearing-support carried by the trace at the eye thereof, and a tree-latch sustained by said support and disposed crosswise of the trace-eye, said latch consisting of a shank having an operating member at one side of the trace and a tree-engaging member at the opposite side.

4. A device of the class described comprising a support carried by the trace, and a rotatable tree-latch held in position by said support and disposed crosswise of the trace-eye, said latch having an operating member at one side of the trace, and a tree-engaging member at the opposite side.

5. A device of the class described, comprising a protective sheathing formed of a blank having a curved stem fitting within one end of the trace-eye, and also having cheek-pieces facing opposite sides of the trace and united over one edge thereof.

6. In a device of the class described, a bearing-support carried by the trace at the eye thereof, a tree-latch consisting of a turning shank sustained by the bearing-support and arranged crosswise of the trace-eye, said shank being provided at one end with a tree-engaging hook, and at its other end with a finger-lever, and a holding-spring housed within said bearing-support and engaging said shank.

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

JAMES M. WHYTE.

Witnesses:

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ELLA E. WHYTE.