

No. 624,395.

Patented May 2, 1899.

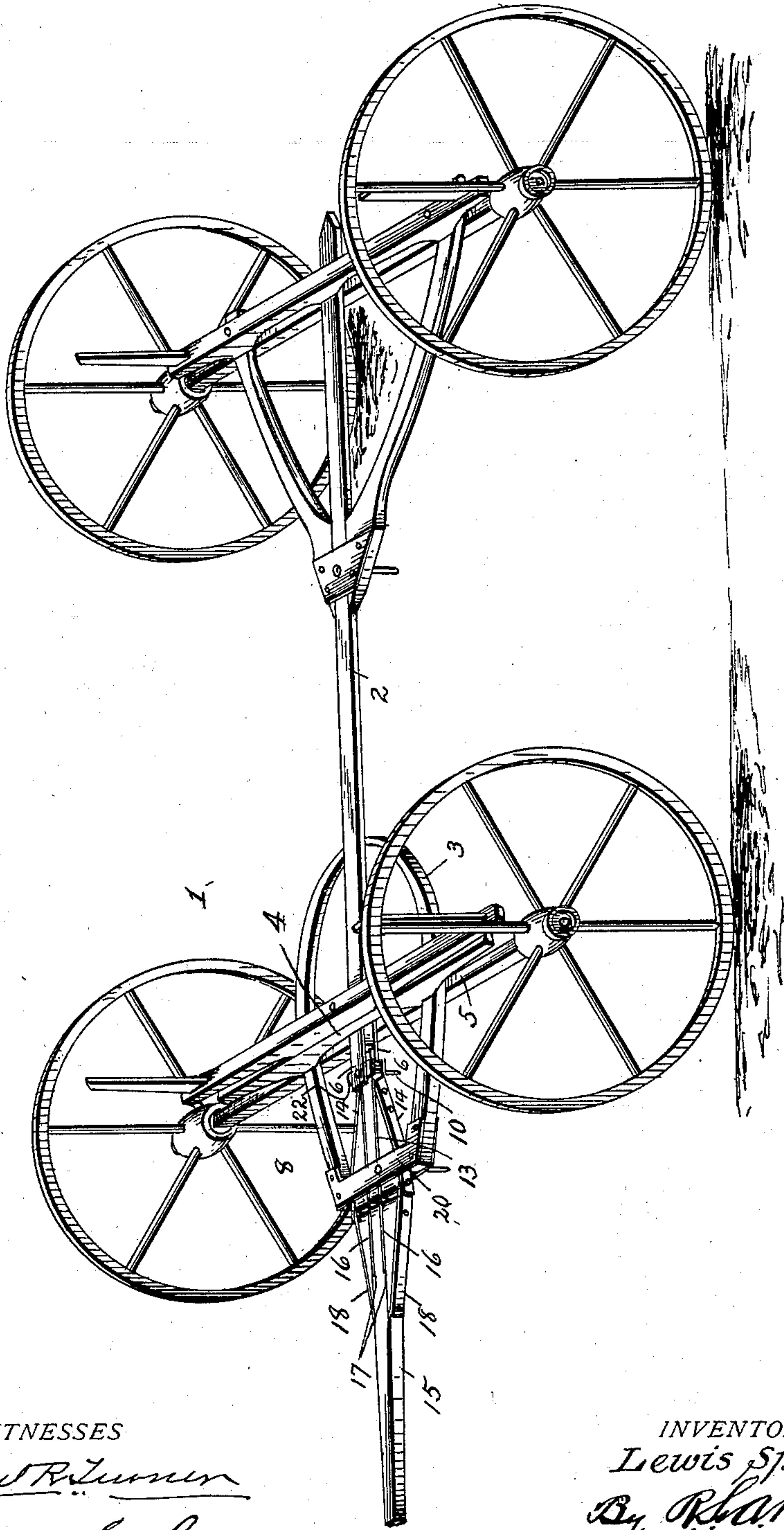
L. SPAULDING.  
WAGON TONGUE ATTACHMENT.

(Application filed July 5, 1898.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 1.



WITNESSES

*Sam R. Turner*  
*Chas. S. Hoyer.*

INVENTOR

*Lewis Spaulding*  
*By R. A. P. Lamy*  
Attorney &

No. 624,395.

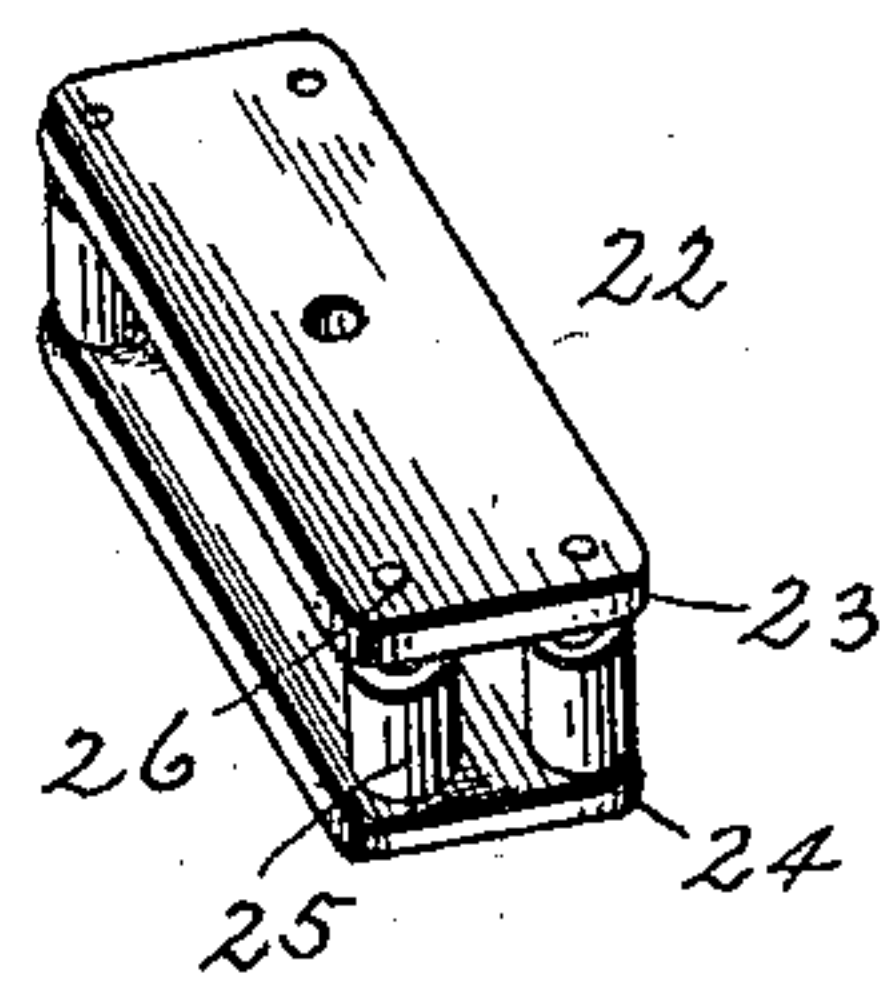
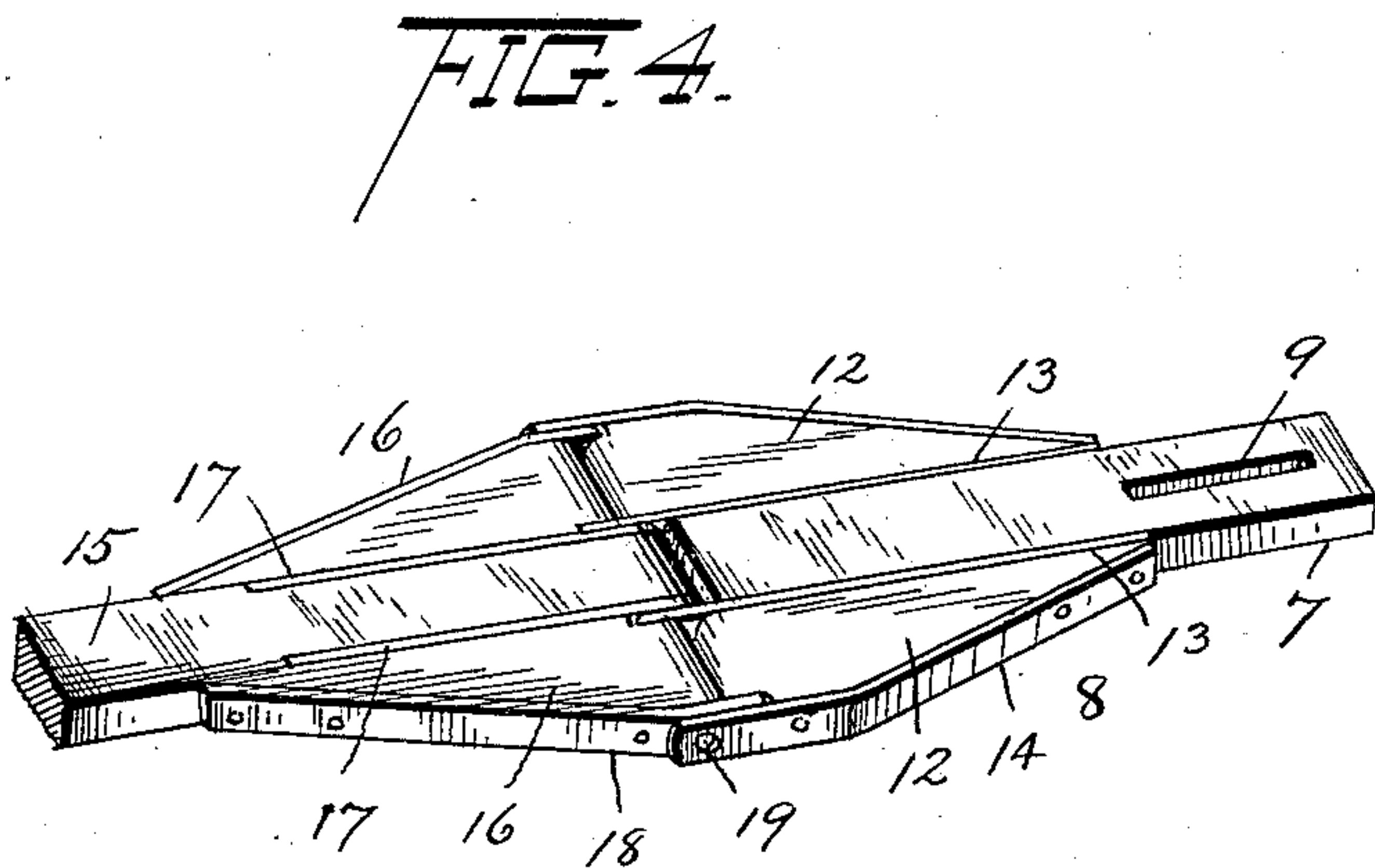
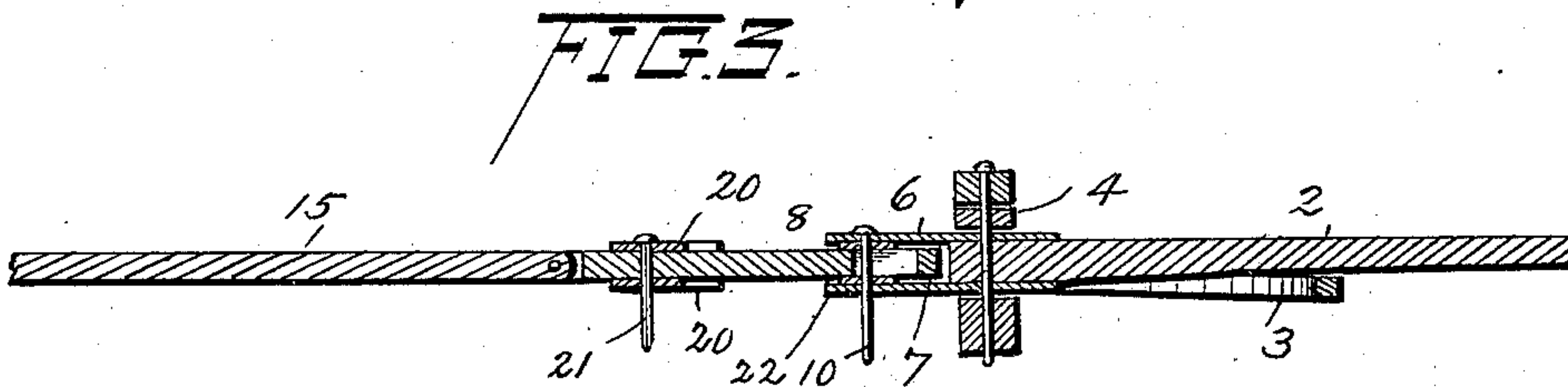
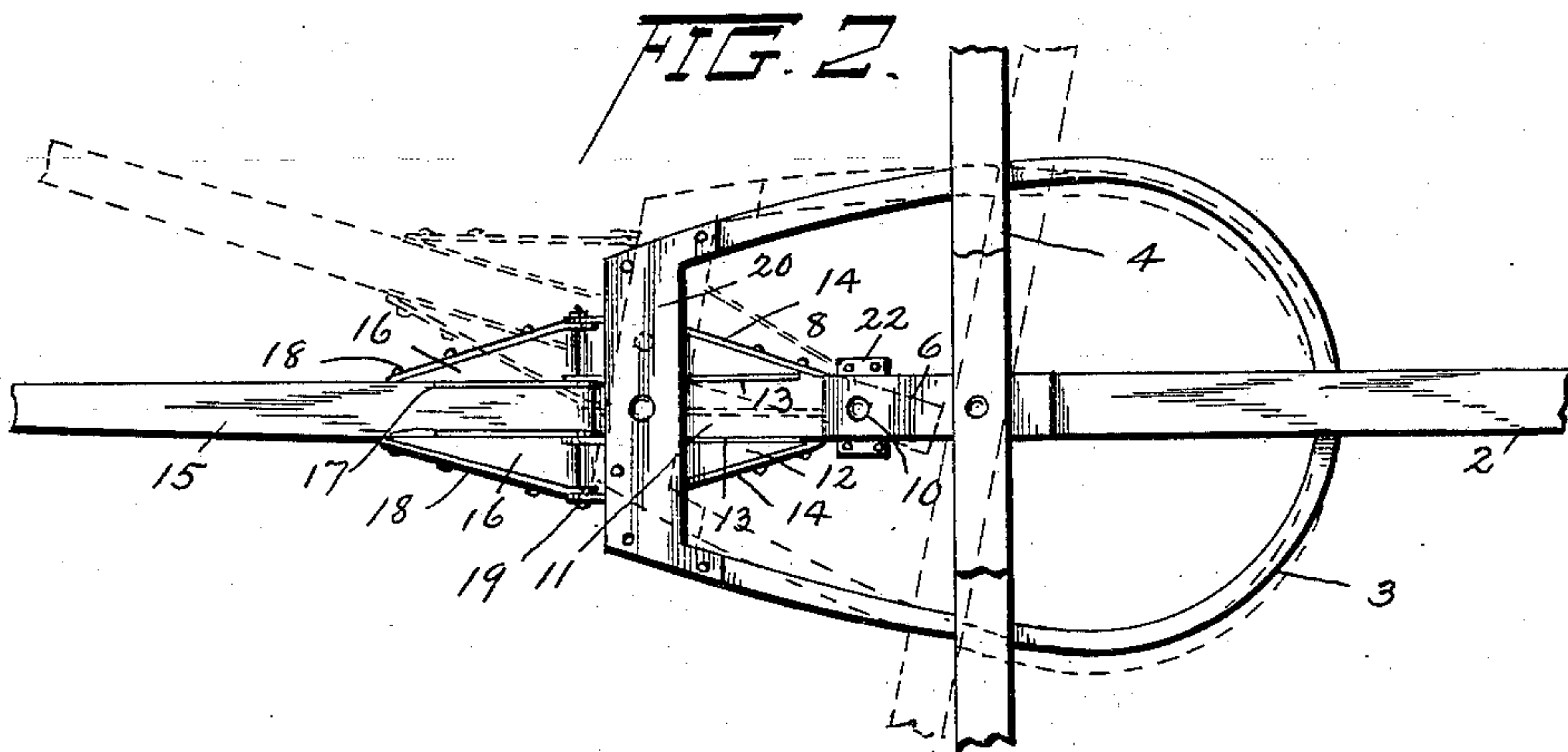
Patented May 2, 1899.

L. SPAULDING.  
WAGON TONGUE ATTACHMENT.

(Application filed July 5, 1898.)

(No Model.)

2 Sheets—Sheet 2.



WITNESSES

*Saml. Turner*

*Chas. S. Hoyer.*

INVENTOR

*Lewis Spaulding*

*By R. M. B. Lacey*

Attorney



# UNITED STATES PATENT OFFICE.

LEWIS SPAULDING, OF HOWARD, NEW YORK.

## WAGON-TONGUE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 624,395, dated May 2, 1899.

Application filed July 5, 1898. Serial No. 685,127. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS SPAULDING, a citizen of the United States, residing at Howard, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Wagon-Tongue Attachments; 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.

This invention relates to wagon-tongue attachments; and, generally stated, it consists of a reach having a connecting device at the front end, a coupling having a rear slotted extension, and an antifriction-box attached to said connecting device and also secured adjacent its front end to a yoke-hound, and a tongue having a rear widened end pivoted to the front end of said coupling.

The invention further consists of the details of construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

The object of the invention is to provide a simple, strong, and durable attachment for movably connecting tongues or poles to the running-gears of wagons in such a manner as to partially, at least, absorb sudden irregular movements of the front wheels and prevent the full effect of the latter being transmitted to the said tongues or poles.

In the accompanying drawings, Figure 1 is a perspective view of a lumber-wagon, showing the invention applied thereto. Fig. 2 is a top plan view of a portion of the tongue and front part of the running-gear, showing a movement of the tongue in turning by dotted lines. Fig. 3 is a central longitudinal section of the device as shown by Fig. 2. Fig. 4 is a detail perspective view of a portion of the tongue and coupling. Fig. 5 is a detail perspective view of the antifrictional device used on the rear end of the coupling.

Referring to the drawings, wherein similar numerals are used to indicate corresponding parts in the several views, the numeral 1 designates a lumber-wagon to which the invention is shown applied, though the device, which will be hereinafter described, could be

equally well used on any other kind of wagon or vehicle.

The running-gear of the wagon, as shown, embodies a reach 2, which extends over a yoke-hound 3 under a bolster 4 and on a front axle 5, said hound being secured both to the bolster and axle and the said reach projecting slightly in advance of the said bolster and axle and has secured to the front end thereof a pair of horizontal plates 6, which are spaced apart from each other and applied to the top and bottom portions of the said reach. The rear extended end 7 of a coupling 8, as clearly shown by Figs. 3 and 4, is embraced by the said plates 6 and has an elongated slot 9 therein, through which a bolt 10 extends and is supported by the said plates. The extension 7 is a continuation of the central member 11 of the coupling, and on opposite sides are blocks 12, which are tapered toward the rear, and between the blocks and the opposite sides of the central member of the coupling metallic plates 13 are interposed and extended beyond the front end of said central member. The outer edges of the blocks 12 are also bound by metallic straps 14, which are projected at their front ends beyond the front termination of the said coupling. The front end of the central member 11 of the coupling terminates in rear of the plane of outward extension of the said blocks, and the latter at their front ends are rounded or curved to provide for an easy contact of the connected parts and to avoid formation of obstructing straight edges, which would prevent the parts having proper movement. The rear end of the tongue 15 has blocks 16, secured to opposite sides thereof, of the same shape as the blocks 12 of the coupling and in reverse positions, so that the wide ends of the blocks will be adjacent. The rear ends of the blocks 16 are also rounded or curved, and between the same and the opposite portions of the tongue metallic plates 17 are confined and entirely embrace the rear portion of the tongue, which extends beyond or rearward a greater distance than the rear ends of the said blocks 16. The outer edges of the said latter blocks have metallic bindings in the form of straps 18 thereon, with the ends projected



rearward, and the entire width of the several parts at the rear end of the tongue, as stated, is slightly less than the width of the coupling in order that the rear projecting ends of the straps 18 will lie within the forwardly-projecting ends of the straps 14 of the coupling 8. The straps 17 and the rear portion of the tongue also fit between the front projecting ends of the straps 13, and when all the parts are thus arranged a pivot-bolt 19 is inserted transversely through the projecting portions of the binding-straps and also through the engaging parts of the straps 13 and 17 and tongue 15, and thereby form a pivotal connection, which will allow the tongue to be raised and lowered for various purposes and at the same time provide a strong and durable connection which will resist wear and lateral strain. The front part of the yoke-hound 3 has upper and lower connecting-plates 20, which pass over and below the front part of the coupling 8, and through the said plates and the coupling a bolt 21 is passed to hold the said parts together.

To ease the movement of the extension 7 of the central member 11 in the coupling and also to prevent wear and friction, a rectangular antifriction-box 22 is fitted on the end of said extension and positioned in a transverse direction. The said box consists of upper and lower plates 23 and 24, which are held apart from each other by opposite end antifriction-rollers 25, arranged in pairs and having bearing upon spindles or rods 26, with their ends upset in the said plates. The bolt 10, connecting the plates 6 with the extension 7, also passes through the central portions of the plates 23 and 24, and when the tongue 15 is turned either to the right or left the opposite sides of the said extension are brought to bear against the antifriction-rollers, and binding of the parts is thereby prevented.

The shock or jar transmitted to the axle through the wheels striking an obstruction or suddenly dropping into a depression or rut is absorbed by the rear part of the coupling and materially by the slot in the extension 7, as a play or loose attachment exists at this point, and as a further means of preventing the vibration being wholly transmitted to the tongue the front portion of the coupling 8 is widened by the use of the blocks 12, and these, as set forth, being connected to relatively-situated blocks 16, extend the pivot-joint and render the connection less sensitive than would be the case if the tongue merely swung on an ordinary wagon-hammer or other bolt. The blocks 12 and 16 are constructed of wood for the purpose of lightening the weight as much as possible, and by interposing the plates 13 and 17 and applying the binding-straps 14 and 18 the connection is strengthened and a metallic bearing provided for the pivot-bolt 19, which will resist wear. It will also be observed from the

arrangement of bolts in the improved attachment that the draft is concentrated on more than one, and the strength of the tongue connection is also thus materially increased. 70

Many advantages will appear from time to time other than those enumerated, and changes in the proportions, dimensions, and minor details of construction might be resorted to without departing from the nature or spirit of the invention or sacrificing any of the advantages thereof. 75

Having thus described the invention, what is claimed as new is—

1. In a wagon-tongue attachment, the combination with a reach and complementary parts, of plates secured to the upper and lower sides of the front end of the reach, a coupling having a rear extension movably mounted between said plates and provided with a longitudinal slot, a bolt extending through said plates and slot, and a tongue movably attached to the front end of the coupling. 80 85

2. In a wagon-tongue attachment, the combination with a reach and complementary parts, of plates secured to the upper and lower sides of the front end of the reach, a coupling having a rear slotted extension movably fitted between said plates, a transversely-arranged antifriction-box mounted on the end of said extension and also embraced by said plates, a bolt passed through the plates, antifriction-box and slotted extension, and a tongue movably connected to the front end of said coupling. 90 95 100

3. In a wagon-tongue attachment, the combination with a reach and complementary parts, of a coupling movably attached to the front end of the reach and having a front broadened end formed by applied wooden side blocks tapered toward the rear, interposed metallic plates projecting beyond the front termination of the coupling, metallic binding-straps on the outer edges of said blocks and having front extended ends, a tongue having blocks on opposite sides of the rear end thereof in reverse positions to those on the coupling, interposed metallic plates between the said blocks and tongue, outer edge metallic binding-straps on the blocks secured to the tongue and having rearwardly-projecting ends, and a pivot-bolt transversely extending through the projections of the binding-straps, the blocks and the tongue and interposed plates. 105 110 115 120

4. In a wagon-tongue attachment, the combination with a reach and complementary parts, of a coupling movably attached to the reach and having a front broadened end, a tongue having a rear broadened end, and a pivot-bolt transversely passing through the adjacent engaging parts of the tongue and coupling. 125

5. In a wagon-tongue attachment, the combination with a reach and complementary parts, of plates attached to the upper and lower sides of the front end of the reach, a 130



coupling having a rearwardly-extending central member formed with a longitudinal slot and embraced by the said plates, the front end of the said coupling being broadened, an  
5 antifriction-box fitted over the rearwardly-extending portion of the coupling and also embraced by the plates on the reach, a bolt passed through the said plates, antifriction-box and slot on the rearward extension, and

a tongue having a rear broadened end pivotally connected to the front broadened end of the coupling by a transverse bolt.

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

LEWIS SPAULDING.

Witnesses:

ORINDA SPAULDING,  
MARIE SPAULDING.