

No. 681,729.

Patented Sept. 3, 1901.

L. T. PENN.  
SAND SHIELD.

(Application filed July 2, 1901.)

(No Model.)

Fig. 1.

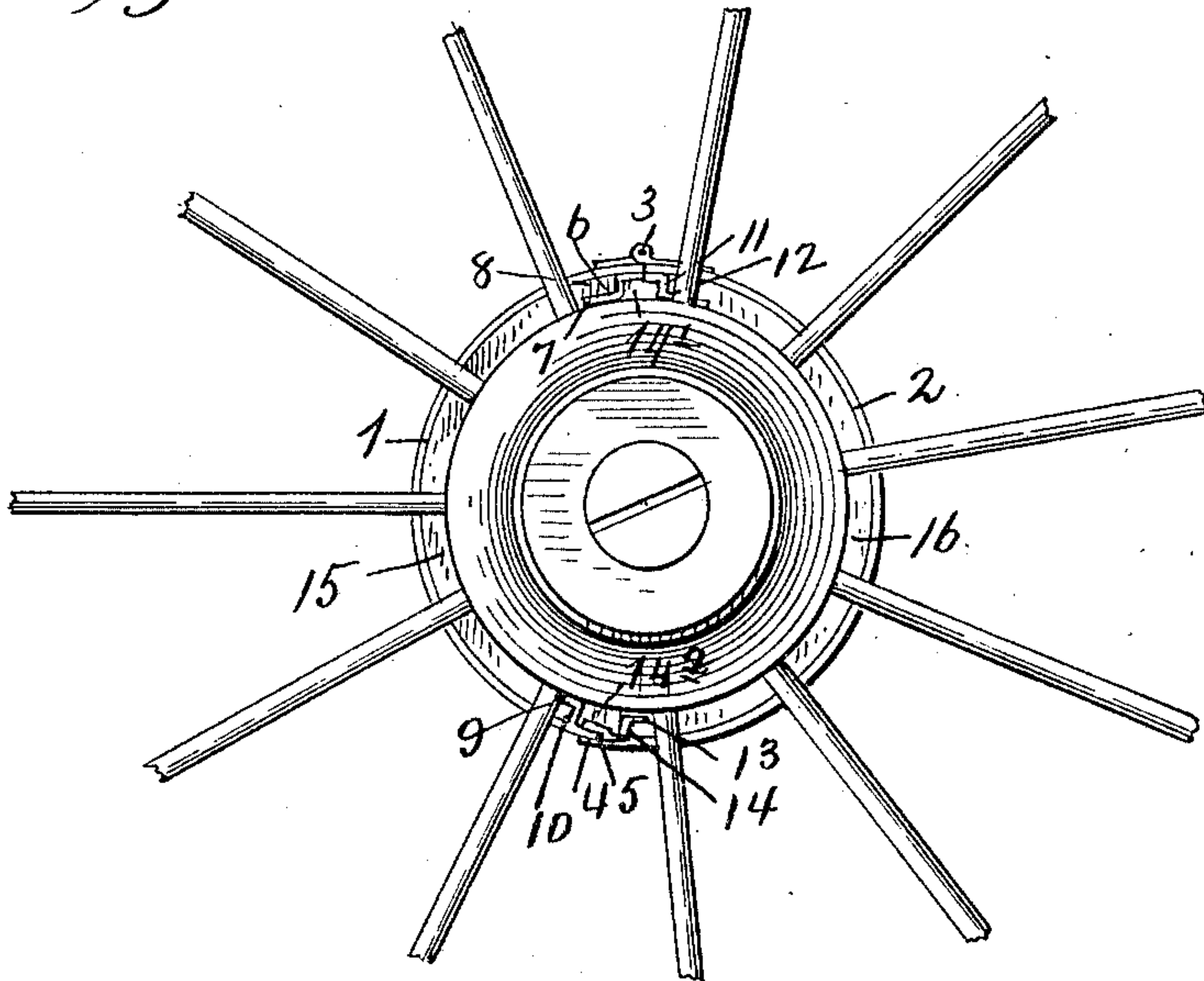


Fig. 2.

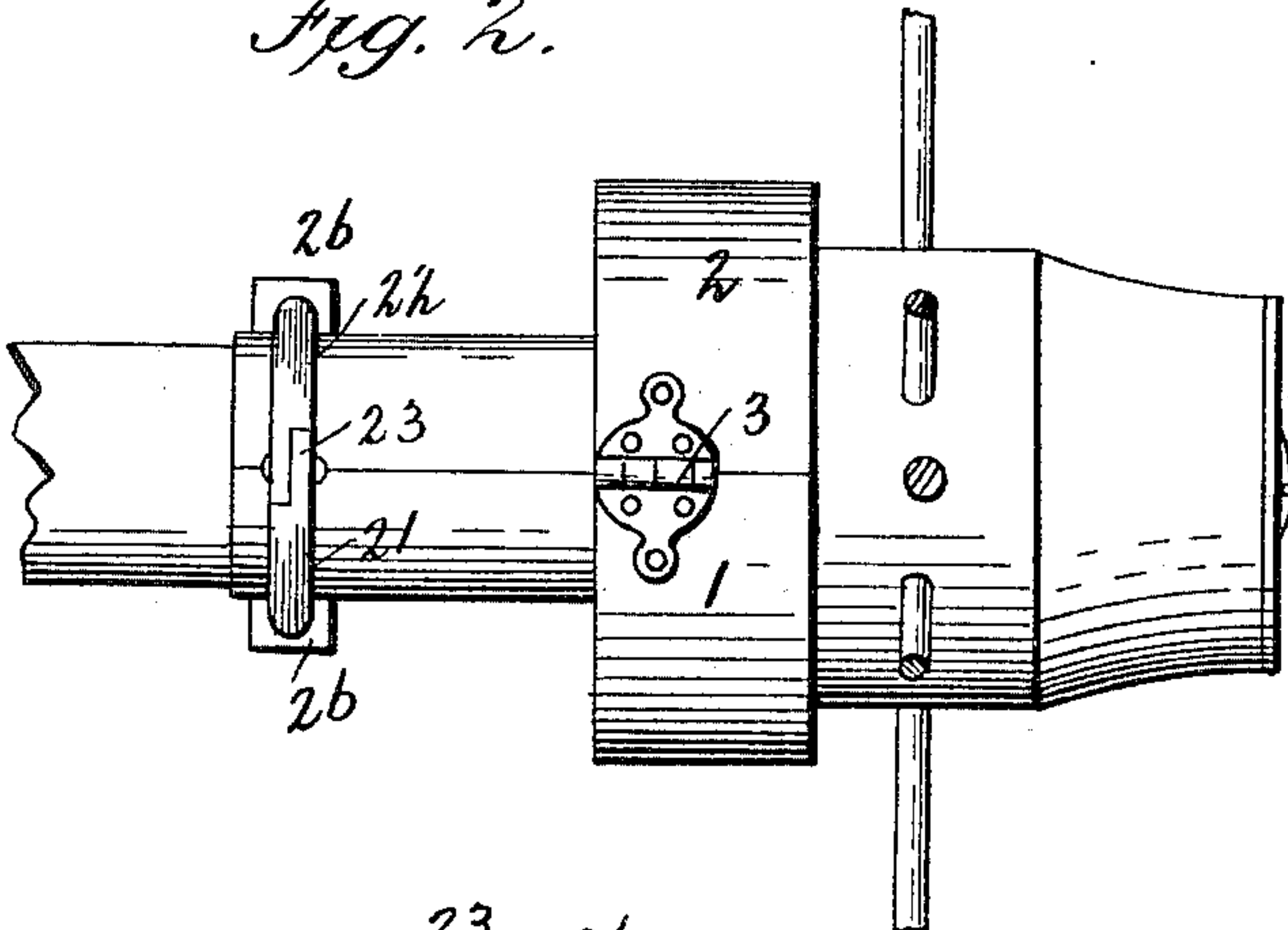
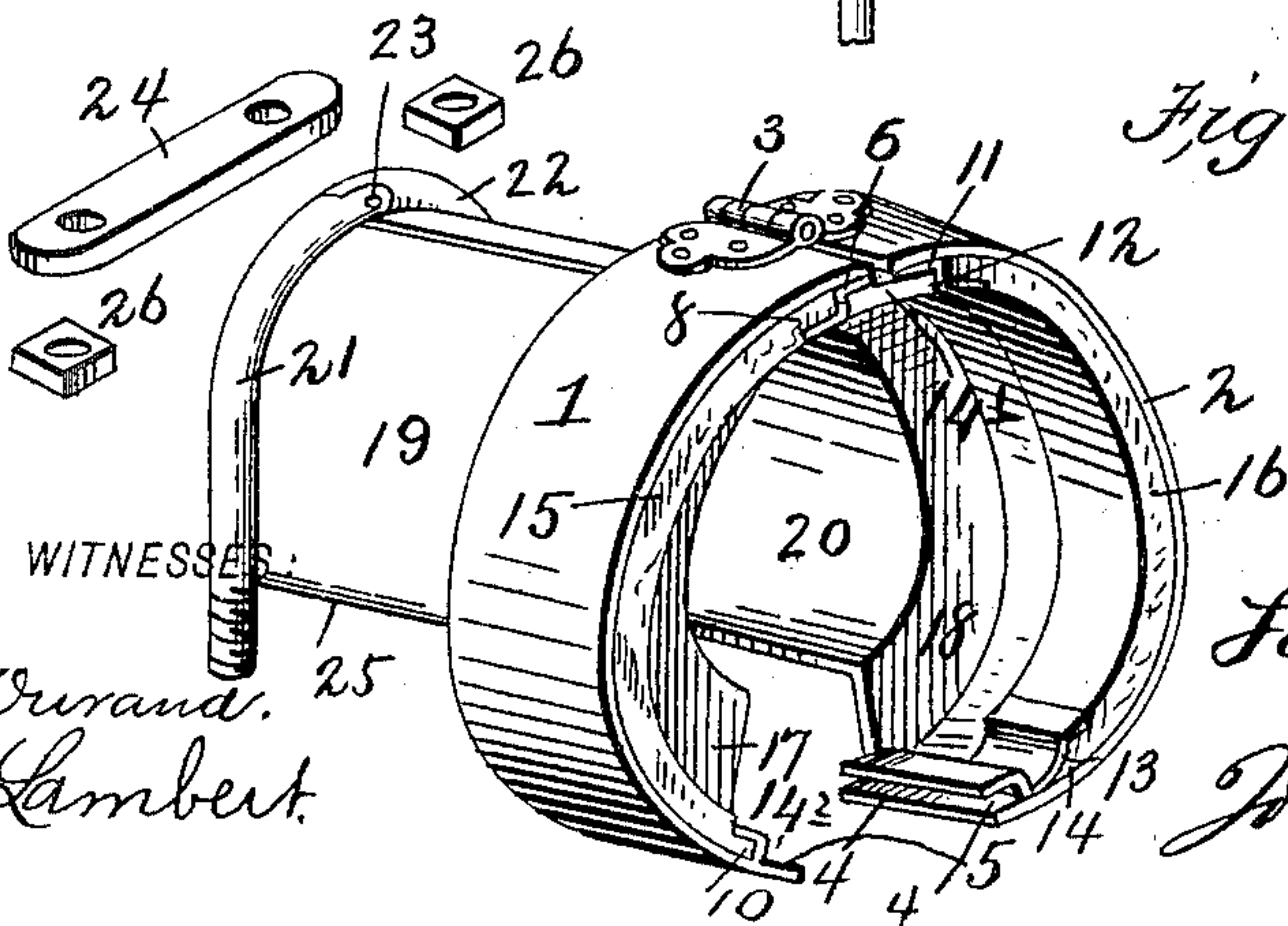


Fig. 3.



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LOUIS T. PENN, OF AUGUSTA, ARKANSAS, ASSIGNOR OF TWO-THIRDS TO  
WILLIAM H. CHAMBERS, OF SAME PLACE.

## SAND-SHIELD.

SPECIFICATION forming part of Letters Patent No. 681,729, dated September 3, 1901.

Application filed July 2, 1901. Serial No. 66,865. (No model.)

### *To all whom it may concern:*

Be it known that I, LOUIS T. PENN, a citizen of the United States, residing at Augusta, in the county of Woodruff and State of Arkansas, have invented certain new and useful Improvements in Sand-Shields, of which the following is a specification.

My invention is a sand-shield adapted to cover the inner ends of all vehicle-hubs out to the spokes and designed to protect the inner ends of the hub and to prevent sand, dirt, mud, and the like from getting into the spindle of the axle and consisting of a hinged band made in two parts hinged together, with a neck extending inwardly from the sand-band and adapted to be secured to the axle and in this manner securing the band to the rear part of the hub.

In the accompanying drawings, Figure 1 is an end view of a vehicle-wheel, showing the outer end of the band and the lining. Fig. 2 is a top view of an axle, of a hub, and the sand-shield. Fig. 3 is a detail view of the sand-shield and the means of securing it to the axle.

My invention is described as follows:

1 is one half of the band, and 2 is the other half. 3 is a hinge by which these two bands are hinged together. The part 2 is made with a mouth 4, while the part 1 is made with a tongue 5, which enters into said mouth. Part 1 is provided with a double right-angle strip 6, attached to its inner face and almost immediately under the hinge 3. Between the free end 7 of this right-angle strip and the inner face of the band is an opening or a mouth 8. The other end of this part of the band is provided with a double right-angle strip 9, exactly similar to the one just above described, leaving a similar mouth 10. The upper end of the other half of the band is also provided with a double right-angle strip 11, similar to the one just described, leaving a mouth 12, and the lower end of the other half of the band is also provided with a similar double right-angle strip 13, leaving a mouth 14. Fitting against the inner face of these two half parts of the band are strips of rubber belting 15 and 16, their ends fitting in the mouths 8, 10, 12, and 14, just above described. Their ends thus fitting in said

mouths are the means whereby these rubber-belted strips are held in place. Between these right-angle strips just above described are vacant places or recesses 14' and 14<sup>2</sup>, which are filled with short rubber-belted pieces having one of their ends secured to the double right-angle strips, while the other ends are free, and thus this shield may be opened and taken off and replaced without disturbing any of the rubber-belted lining. The purpose of this rubber-belted lining is to secure a neat fit around the inner ends of the hub and present to the surface of the hub a non-metallic surface, so that the hub will not be worn any more than can possibly be avoided. The rear edge of this band 1 and 2 is provided with a rear wall 17 and 18, made in two parts, 17 being secured to the rear edge of part 1 and 18 to the rear edge of part 2. These two walls are recessed or cut away so as to give room to the outer end of the axle. Secured to and extending rearwardly from these two walls is a neck, also made in two parts 19 and 20. These two parts are made to open and shut with parts 1 and 2 and are also made to fit over the outer end of the axle. Secured to the rear ends of this neck is a hinged U-shaped clamp divided into two parts 21 and 22 and hinged together at their upper ends by a hinge 23. The lower ends are threaded, and adapted to work on these threaded ends is a perforated cross-plate or clamping-bar 24, which fits against the lower folds 25 of the neck. Said clamping-plate 24 is secured in place by nuts 26. When I wish to remove the shield, I take off the nuts 26, and the shield may then be easily opened and may be put on easily by putting the clamping-bar 24 in place and screwing on the nut. When the rubber-belted strips become worn, they can be easily replaced by cutting new strips to fit and inserting their ends in the mouths above described and by securing smaller strips in the recesses mentioned above.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A sand-shield, adapted to vehicles, consisting of two half-bands, hinged together at the top, and encircling a hub, and united at



the bottom; walls secured to the rear edges of said half-bands and having recesses to receive the axle of the vehicle; a neck made in two parts secured to said walls and extending rearwardly; a clamp secured to the two parts of said neck, and hinged together at the top, the lower ends of said clamp being threaded; a perforated clamping-plate fitting on the ends of said clamp and against the lower laps of said neck, and threaded nuts screwed on the threaded ends of said clamp and holding said clamp firmly in place, substantially as shown and described and for the purposes set forth.

2. A sand-shield, adapted to vehicles, consisting of two half-bands hinged together at the top, and encircling a hub, and united at the bottom; double right-angle pieces secured to the inner faces of the said half-bands and near each end, leaving between said angle-pieces and the inner faces of said half-bands, mouths; rubber-belted strips secured to the

inner faces of the two half-bands, their ends fitting in the said mouths; short rubber-belted strips secured to the inner faces of said double angle-pieces; walls secured to the inner edges of said half-bands, and having recesses to receive the axle; a neck made in two parts, secured to said walls and extending rearwardly; a clamp secured to the inner ends of the two parts of the said neck, and hinged together at the top; a perforated plate fitting over the ends of said clamp and against the laps of said neck, and threaded nuts secured on the lower ends of said clamp, and holding said clamp firmly in place, substantially as shown and described and for the purposes set forth.

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

LOUIS T. PENN.

Witnesses:

T. O. DICKINSON,  
J. B. KITTRELL.