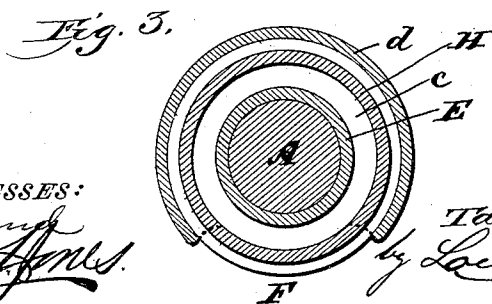
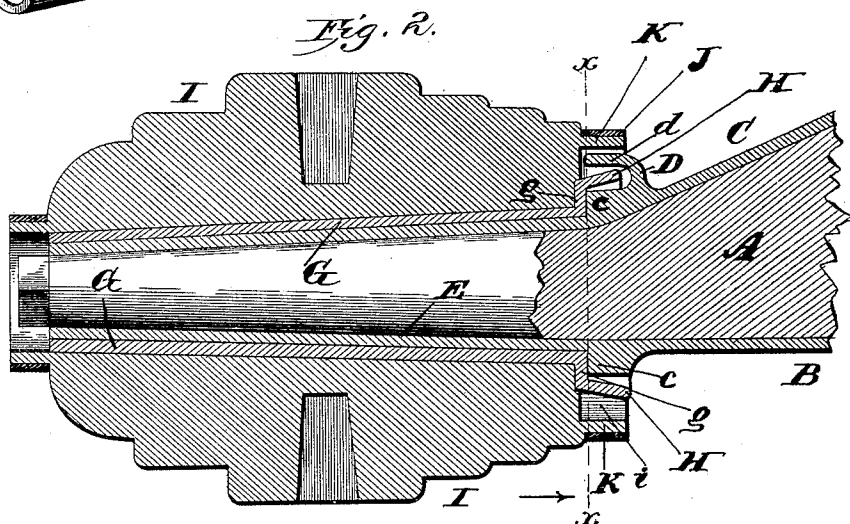
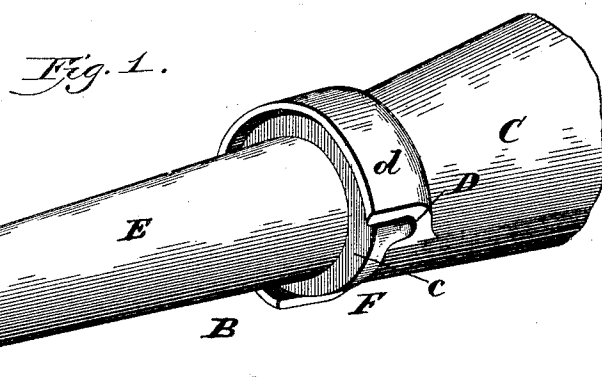


(No Model.)

T. G. MANDT.
AXLE SKEIN.

No. 467,819.

Patented Jan. 26, 1892.



WITNESSES:
F. L. Oursang
James H. Jones

INVENTOR:
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his Attorneys.

UNITED STATES PATENT OFFICE.

TARGE G. MANDT, OF STOUGHTON, ASSIGNOR OF ONE-HALF TO JOHN A. JOHNSON, OF MADISON, WISCONSIN.

AXLE-SKEIN.

SPECIFICATION forming part of Letters Patent No. 467,819, dated January 26, 1892.

Application filed July 11, 1891. Serial No. 399,171. (No model.)

To all whom it may concern:

Be it known that I, TARGE G. MANDT, a citizen of the United States, and a resident of Stoughton, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Axle-Skeins; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved axle-skein with the box removed. Fig. 2 is a longitudinal sectional view through the axle-skein, axle-box, and hub; and Fig. 3 is a transverse sectional view on line *x x* in Fig. 2.

Like letters of reference denote corresponding parts in all the figures.

This invention relates to an improvement in axles for vehicles; and it consists in the peculiar construction of the axle-skein and sand-band and in the combination of the same with the hub, which will be more fully set forth hereinafter, and particularly pointed out in the claim.

Referring to the drawings, the letter A designates the axle, which may be of wood or metal, solid or tubular, as desired.

B is the skein, which consists of the sleeve C, fitting upon the axle, the flanged collar D, and thimble-skein proper or spindle E. The flanged collar D is set back upon the part C, so that the latter will form an offset or shoulder *c* within the collar, the flange *d* of which slightly overlaps the same, as shown in Fig. 2. The collar and flange D *d* are broken off or discontinued on the under side of the skein, as shown at F.

The axle-box G has an annular shoulder *g* and flaring flange H, which latter, when the

parts are in their proper juxtaposition, (illustrated in Figs. 2 and 3,) projects into the segmental space formed in the skein by the annular shoulder *c* and flanged collar D *d*. The inner end of the hub I is cupped at *i*, so as to form an annular recess into which projects the outer rim of the collar-flange *d*, the cupped inner rim K of the hub being provided with the usual hub-band J.

From the foregoing description, taken in connection with the drawings, the operation of this device will readily be understood. The flange H of the axle-box, collar-flange *d* of the skein, and flange K of the hub, overlapping one another from alternately opposite sides, form an effectual sand-guard, keeping the axle-box at all times free from dust and grit, and thus insuring its smooth and easy running.

I am aware that wagon-skeins have before been made with an overlapping flange, forming, in combination with a flanged axle-box, a more or less effective sand band or guard for the inner end of the hub, nor do I claim such construction broadly; but

What I claim as my improvement, and desire to secure by Letters Patent of the United States, is—

The combination of the skein comprising the shouldered sleeve C *c*, overlapping flanged collar D *d*, and spindle E, cast in one piece, axle-box G, having annular shoulder *g* and flaring flange or bell-mouth H, and hub I, having overlapping annular banded flange K, substantially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

TARGE G. MANDT.

Witnesses:

AUGUST PETERSON,
BENNETT S. JONES.