A. RANDEL.

Hub.

No. 374. Patented Sept. 8, 1837

Fig: 1.

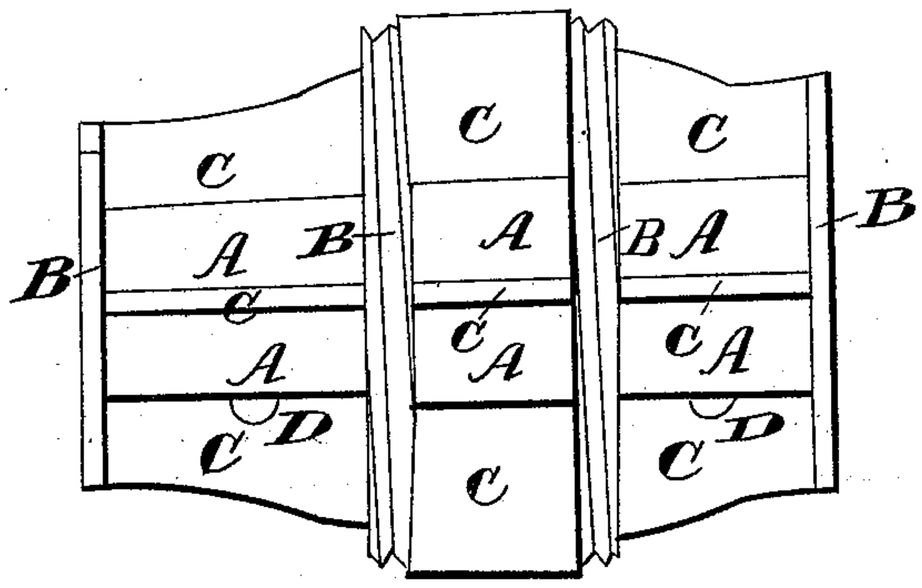



Fig: 2.

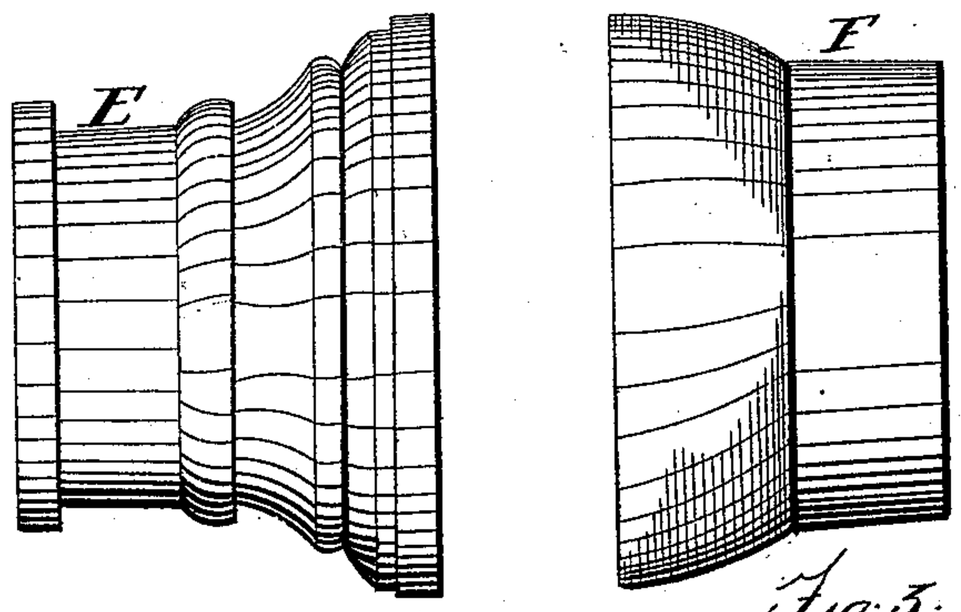
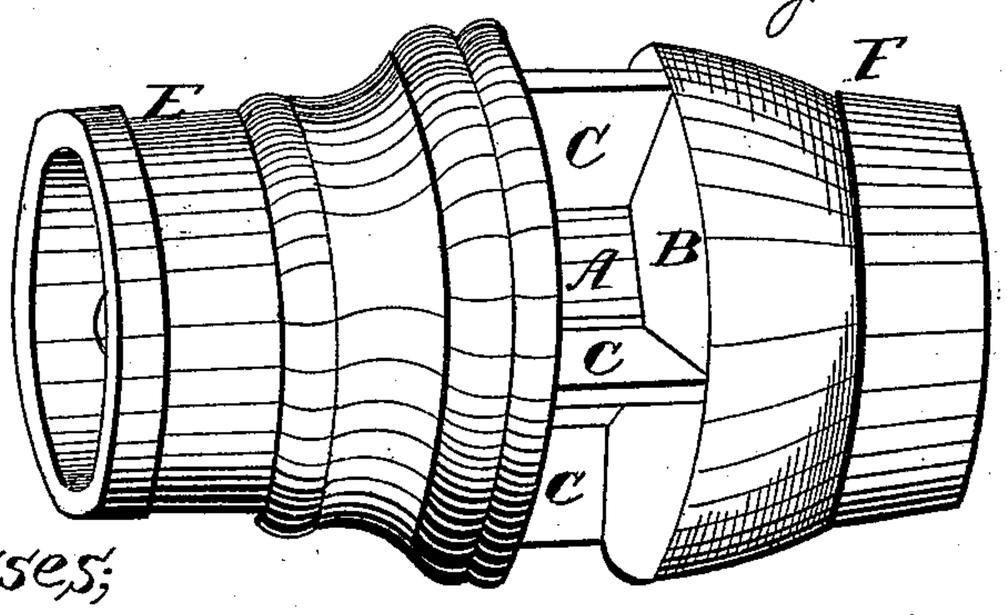



Fig: 3.




Witnesses;
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# UNITED STATES PATENT OFFICE.

ABRAHAM RANDEL, OF VERONA, NEW YORK.

## MODE OF CONSTRUCTING CARRIAGE AND WAGON WHEEL HUBS FOR CONTAINING OIL, &c.

Specification of Letters Patent No. 374, dated September 8, 1837.

*To all whom it may concern:*

Be it known that I, ABRAHAM RANDEL, of the town of Verona, in the county of Oneida and State of New York, have invented a new and useful Improvement in Hubs for Wagons and other Carriages; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in constructing a wagon or other carriage hub of cast iron or other metal hollow, usually in three parts (so as to have the shape and size of those made of wood and metal combined) and thus providing a large cavity for oil, and by means of ribs or partitions in the hub to supply the axle more efficiently than by any other means known to me.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation. 1st. I make a cylindrical tube or pipe, as A, A, A, Fig. 1, seven or eight inches long about three eighths of an inch thick, the internal diameter to correspond with the size desired for the axle (say $1\frac{1}{2}$ in the larger end, and $1\frac{1}{4}$ in the smaller end) on or around this pipe I have four circular plates or rims, as B, B, that at the larger end to be $4\frac{1}{2}$ inches in diameter, and that at the smaller end $3\frac{1}{2}$ inches, about $\frac{1}{8}$ of an inch thick; the two middle rims which are intended to receive the spokes are to be $5\frac{1}{2}$ inches in diameter $\frac{3}{8}$ of an inch thick, and $1\frac{3}{4}$ inches apart; these are to have a screw thread, or other fixture cast on their outer edge to receive and hold the caps hereafter described. There are to be four, (more or less) partitions or ribs as C, running the length of the pipe and connecting the rims or plates. The ribs connecting the two middle rims in which the spokes are to be inserted must rise above the rims so as to be even or level with the caps above mentioned, there may be any desired number of ribs in this part, or it may be so made as to receive the spokes in the usual manner. The ribs which extend from the middle part to each end, are to be of such height, that when the caps are screwed on, two of them, (one at each end, will fit closely to the caps, under these there is a funnel shaped hole, D, through the pipe to let the oil pass freely to the axle. The other ribs are to be of such height as to leave sufficient space for the oil to pass freely between them, and the caps. 2d. The caps are to be of sufficient size as to fit on the middle rims B, and fit closely on the end rims and extend beyond them from $\frac{1}{2}$ an inch to one inch so as to give them the appearance of a band extending over the end of the hubs. These may be as thin as is consistent with a due regard to strength, they may be of cast or wrought metal, and to have such molding or ornament on them as may be desired. 3d. When the caps are secured on the body of the hubs the space (if any there be) between the rims and caps may be closed with a mixture of glue and Spanish white, or any other substance that will retain oil. A small screw may pass through each cap into or against one of the rims or ribs to prevent the caps from ever jarring loose. There may also be a screw through each cap which when taken out leaves a place to supply the hubs with oil. When the hub is sufficiently supplied with oil or other lubricating substance, and as the wheel revolves, the oil is washed, up by the rib or partition, and thrown on, or in the hole D, in the pipe, a small portion of it passes through to the axle, and thus keeps it continually supplied with oil.

I do not intend to confine myself to any particular form or size. These must be varied to suit the different carriages they are intended for, and to suit the fancy of different persons.

I do not claim the casting of wagon or carriage hubs of metal merely;—but

What I claim as my invention or improvement, and not heretofore known to the best of my knowledge, is—

The casting of hubs with hollow compartments for containing the oil, or other lubricating matter, having holes communicating with the axle, the compartments covered by screw boxes substantially as above described.

ABRAHAM RANDEL.

Witnesses:
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JOHN LEE.