No. 877,861. PATENTED JAN. 28, 1908.

J. W. RADU.

PORTABLE TIRE INFLATER.

APPLICATION FILED JULY 13, 1907.

2 SHEETS—SHEET 1.

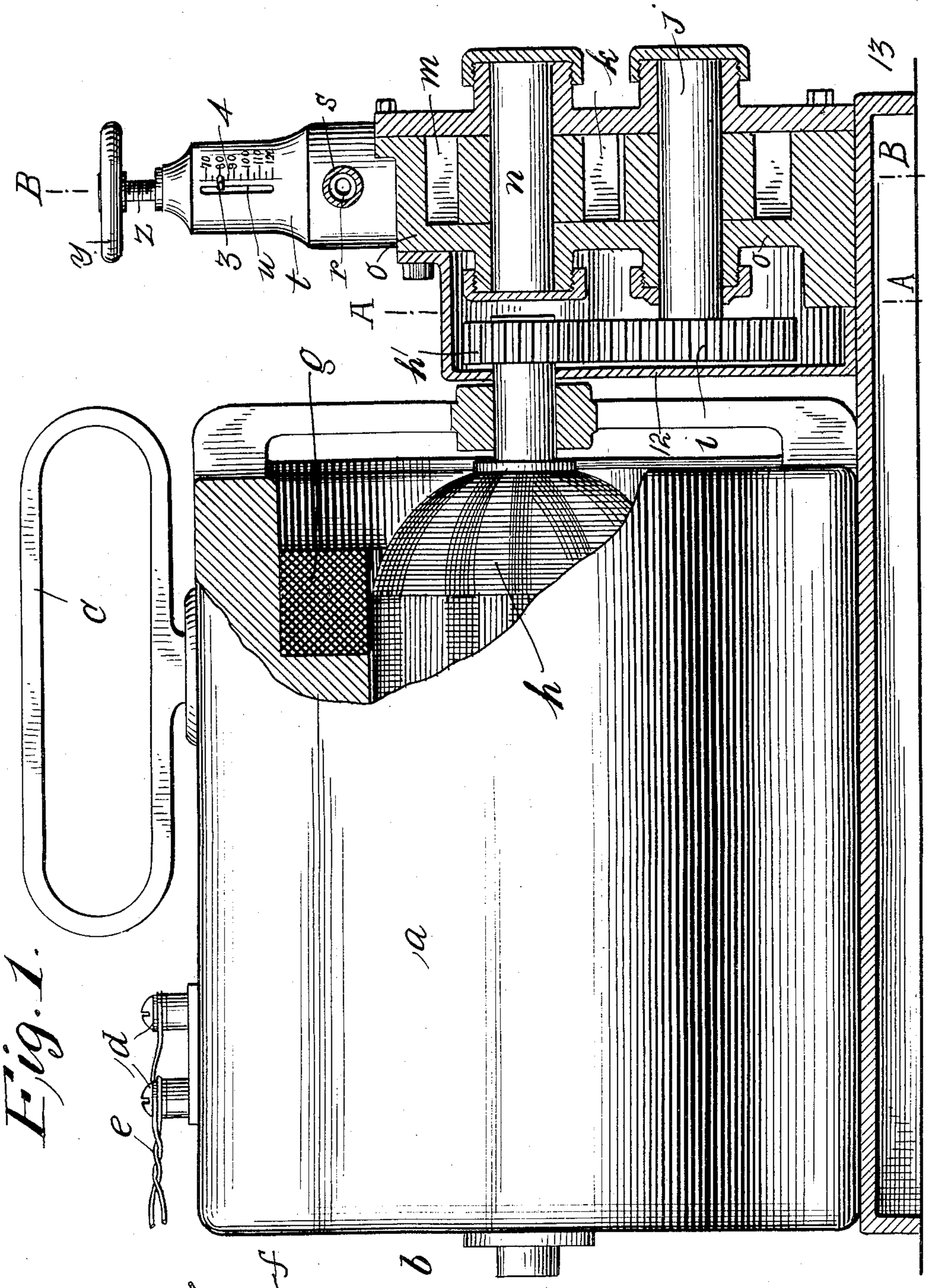

Fig. 1.

Witnesses:
Harry C Hebig
M. Hamilton.

John William Radu Inventor
By his Attorney
James Hamilton

No. 877,861. PATENTED JAN. 28, 1908.

J. W. RADU.

PORTABLE TIRE INFLATER.

APPLICATION FILED JULY 13, 1907.

2 SHEETS—SHEET 2.

Fig. 4.

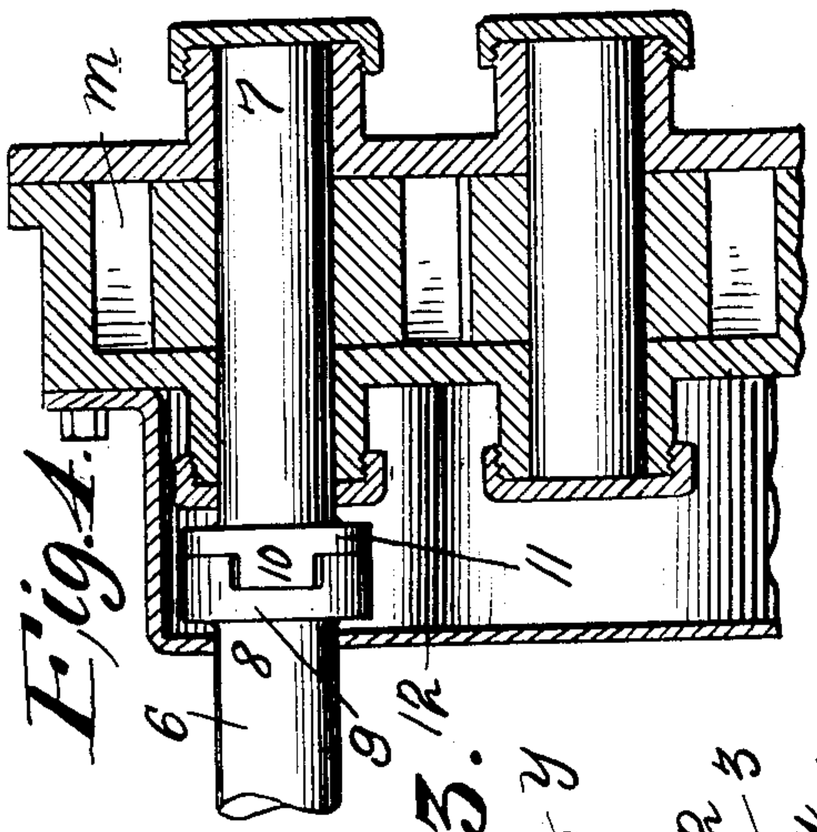

Fig. 3.

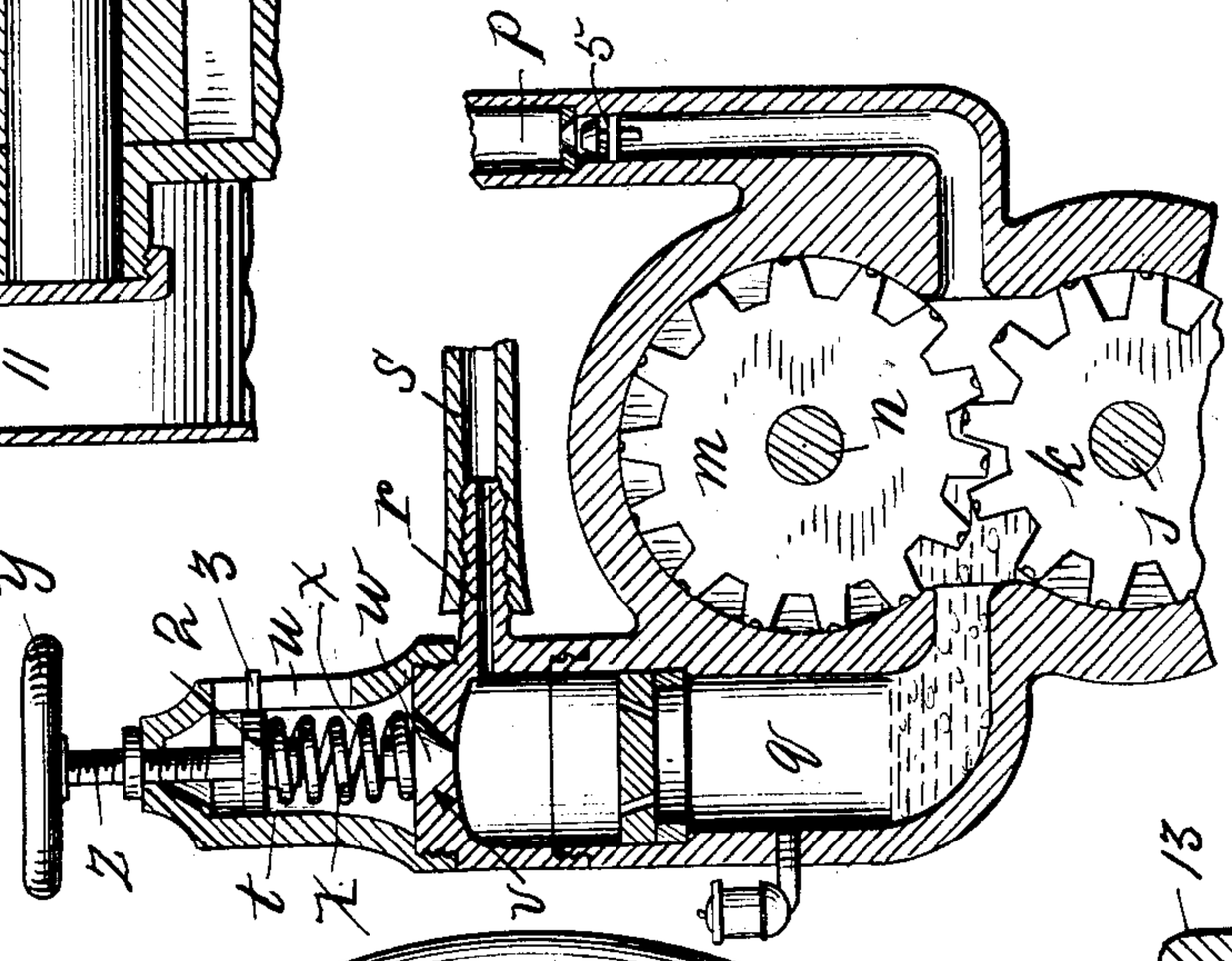

Fig. 5.

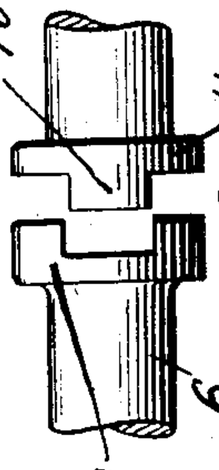

Fig. 2.

Witnesses:
Harry C Hebig
M. Hamilton.

John William Radu Inventor
By his Attorney
James Hamilton

UNITED STATES PATENT OFFICE.

JOHN W. RADU, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF TO PAUL C. WILD, OF ROCHESTER, NEW YORK.

PORTABLE TIRE-INFLATER.

No. 877,861. Specification of Letters Patent. Patented Jan. 28, 1908.

Application filed July 13, 1907. Serial No. 383,693.

To all whom it may concern:

Be it known that I, JOHN WILLIAM RADU, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Portable Tire-Inflaters, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in portable tire-inflaters for automobiles and the like; and an object of my invention is to provide a tire-inflater which will prove simple in construction, comparatively cheap in manufacture and most efficient and handy in actual operation and use.

In the drawings illustrating the principle of my invention and the best mode now known to me of applying that principle, Figure 1 is a side elevation, partly in sectional view, of my new tire-inflater; Fig. 2 is a section on the line A—A of Fig. 1; Fig. 3 is a section on the line B—B of Fig. 1; and Figs. 4 and 5 relate to a modification hereinafter described.

The casing *a* of the electric motor *b* is provided with the handle or grip *c* and binding-posts *d* connected through the wires *e* and plug *f* with any suitable source of current, as the lamp-socket of the automobile. The binding-posts *d* are electrically connected with the terminals of the field coils *g*. The armature *h* of the motor *b* drives the pinion *h'* which meshes with the spur gear *i* fast upon the shaft *j*. The latter carries fast upon it a toothed wheel or gear *k* which is in mesh with the toothed wheel or gear *m* fast upon the shaft *n*. The shafts *j* and *n* are mounted in the pump casing *o* formed with the inlet-pipe *p* and the discharge pipe *q*. The latter is formed with a nipple *r* for the attachment of a hose-pipe *s* which leads the air to the tire to be inflated. Upon the top of the discharge pipe *q* is mounted a valve-casing *t* which communicates with the outer air through the slot *u* and with the discharge pipe *q* through the opening *v*. The latter is normally closed by the safety-valve or blow-off valve *w* which is held upon its seat by the coil spring *x* the tension of which is adjusted by turning the hand-wheel *y* fast upon the upper end of the threaded spindle *z* upon the lower end of which is mounted a disk 2. The latter presses upon the upper end of the coil spring *x* when the hand-wheel *y* is turned so as to lower the disk 2; and the pressure of the spring *x* is indicated by the index 3 which travels over the scale 4 (Fig. 1), whereby the blow-off point of the valve is indicated, also.

Air is admitted to the pump through the inlet-pipe *p* in which is mounted a valve 5 which automatically prevents a return flow of air, when the pump is stopped.

The mode of operation of the pump is fully described in my application Serial No. 383,694 filed concurrently herewith; therefore, no further description is deemed necessary here.

As is shown in Figs. 4 and 5, the armature shaft 6 may be directly connected with the shaft 7 of the upper gear *m* by the coupling 8 consisting of the grooved disk 9 with which engages the rib 10 formed on the disk 11. To the casing *o* of the pump is bolted the housing 12 for the parts by which the armature is connected with the pump which it drives. The whole apparatus is mounted upon a common base plate 13; and it may be readily shifted from place to place by means of the grip *c*.

I claim:

1. In an apparatus of the character described, the combination of a base-plate; an electric motor mounted thereon; an air-compressor mounted on said base-plate; mechanism connecting said motor and air-compressor, whereby said motor drives said air-compressor; means for connecting said air-compressor with the tube to be inflated; means for connecting electrically said motor and a suitable source of current; and means for carrying the apparatus by hand.

2. In an apparatus of the character described, the combination of a base-plate; an electric motor mounted thereon; an air-compressor mounted on said base-plate; mechanism connecting said motor and air-compressor, whereby said motor drives said

air-compressor; a housing for said mechanism; means for connecting said air-compressor with the tube to be inflated; means for connecting electrically said motor and a suitable source of current; and a grip by which the apparatus may be carried by hand.

In witness thereof I have hereunto set my hand at said Rochester this 24 day of June, 1907, in the presence of the two undersigned witnesses.

J. W. RADU.

Witnesses:
CLARA L. RADU,
FREDERICK W. COIT.