No. 772,675. PATENTED OCT. 18, 1904.

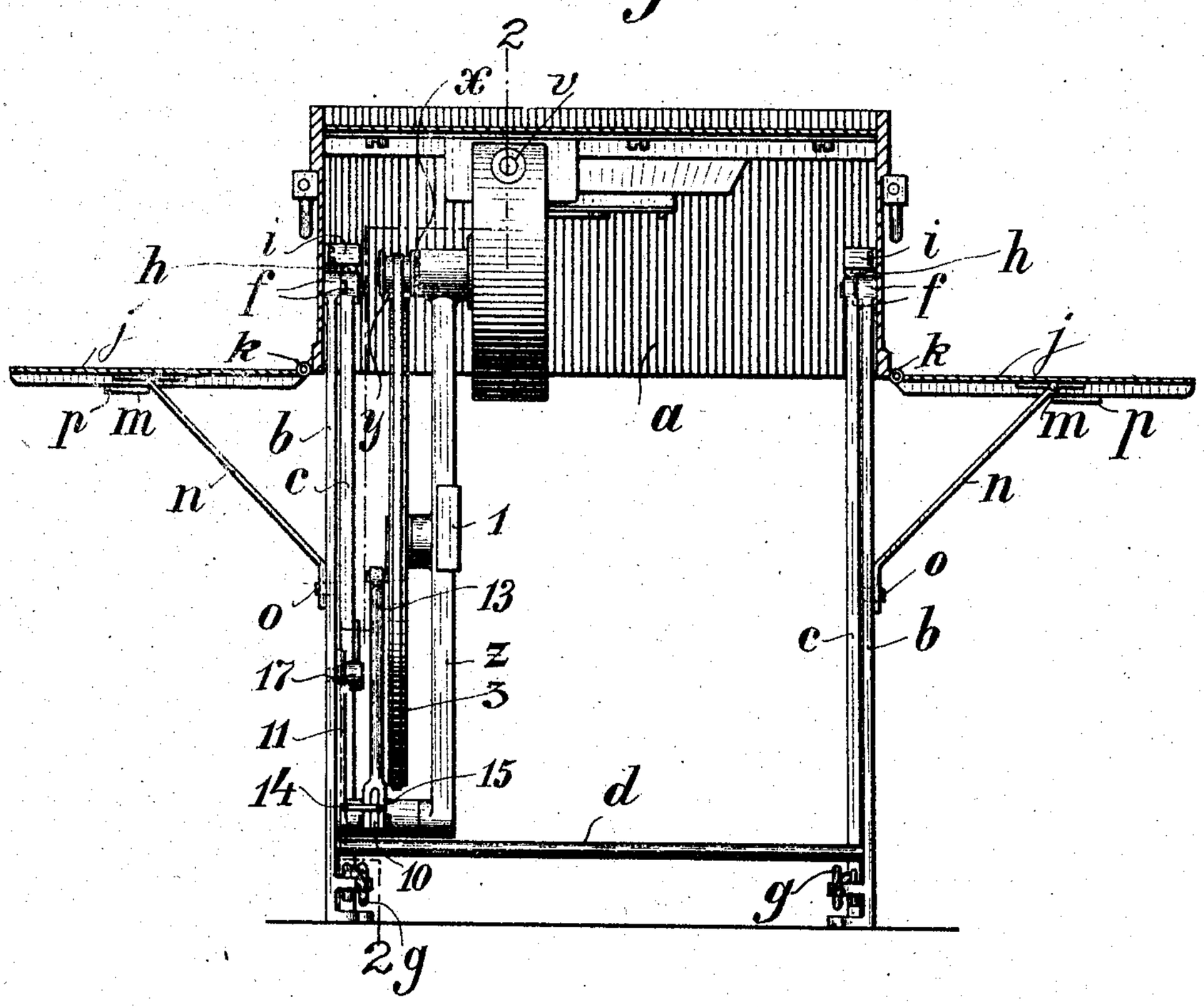
K. F. SCHALLER.

FOLDING FIELD FORGE.

APPLICATION FILED JULY 14, 1904.

NO MODEL. 3 SHEETS—SHEET 1.

Fig. 1.



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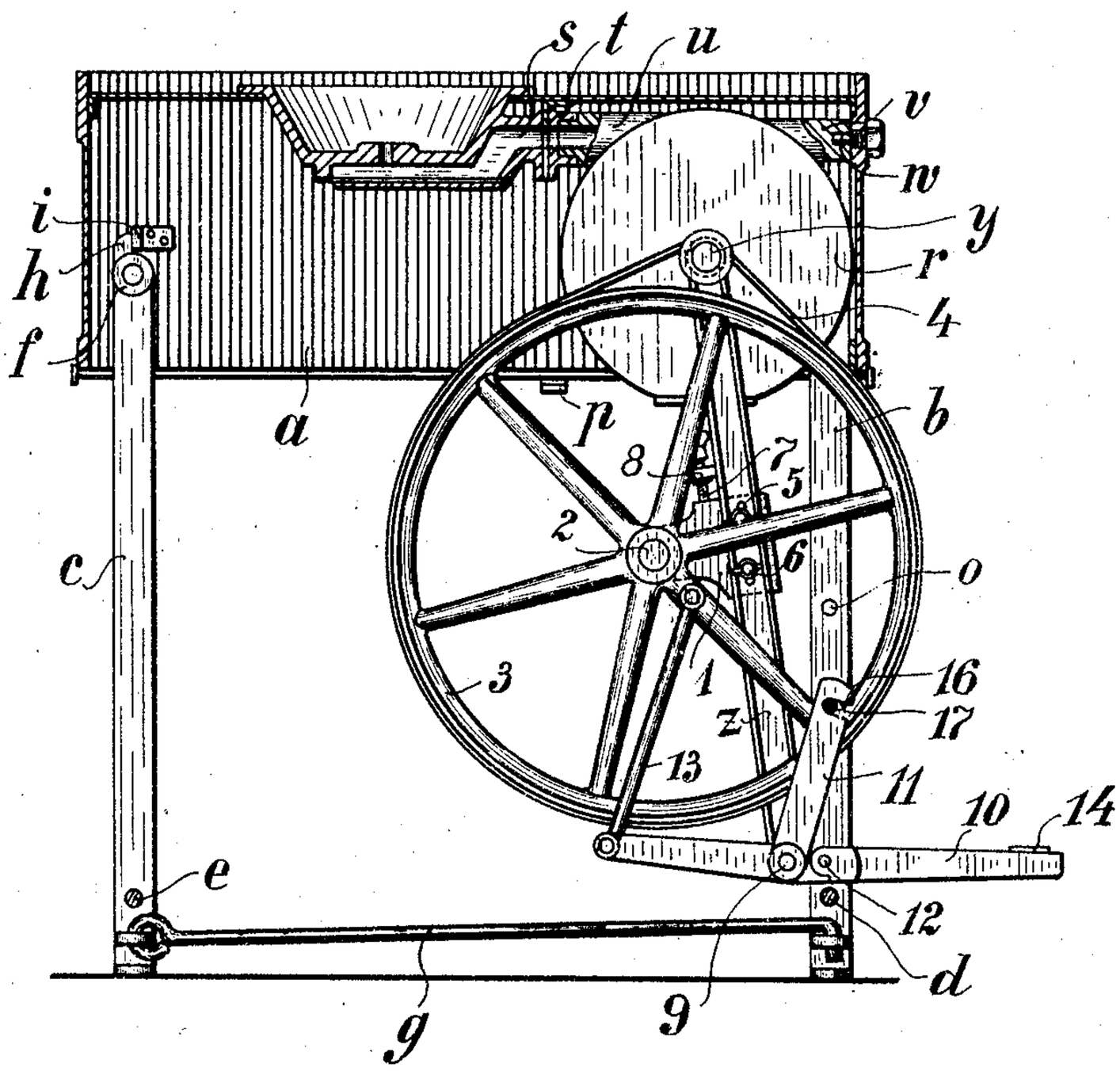
NO MODEL. 3 SHEETS—SHEET 2.

Fig. 2.



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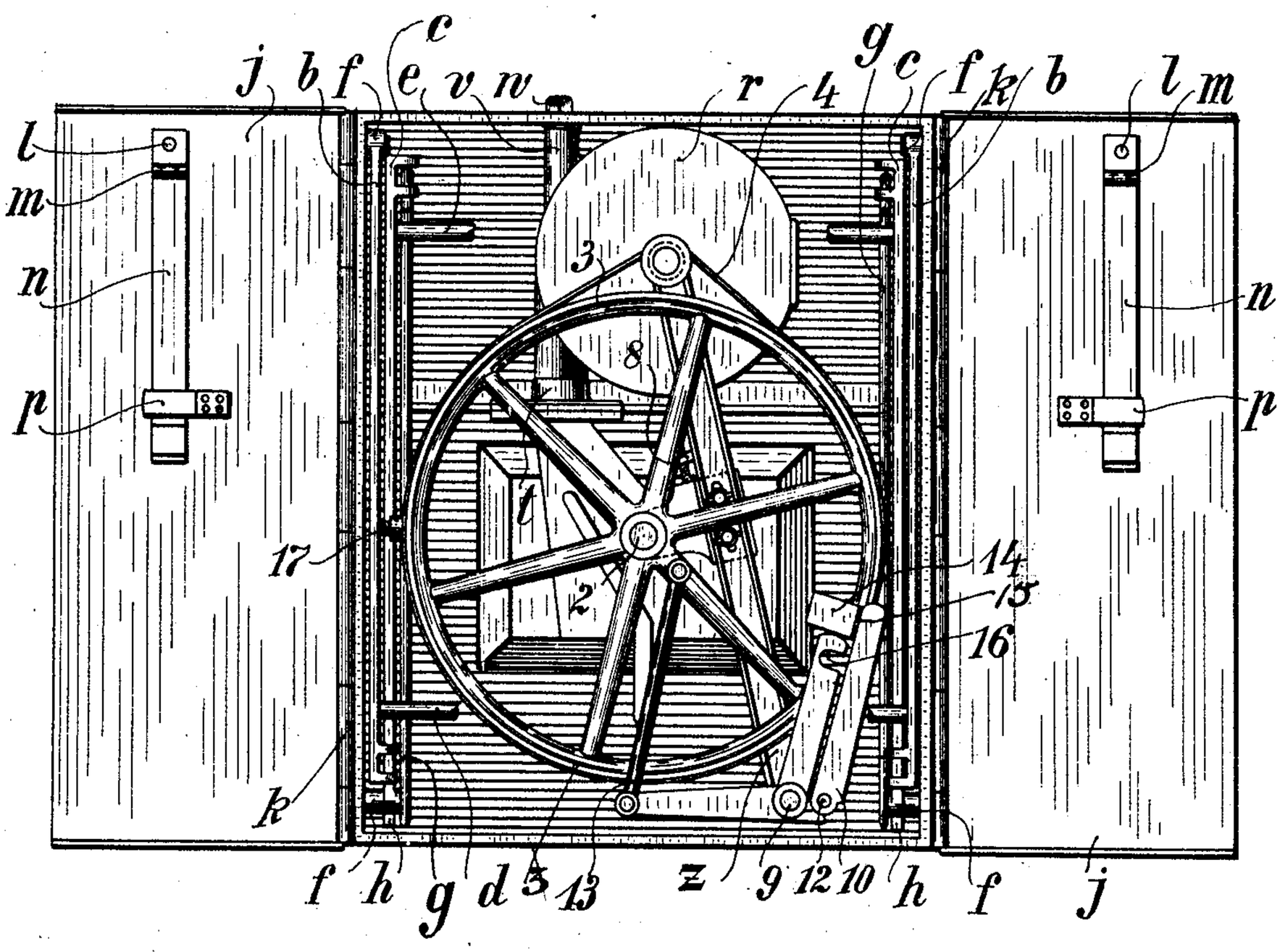
NO MODEL. 3 SHEETS—SHEET 3.

Fig. 3.



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No. 772,675. Patented October 18, 1904.

UNITED STATES PATENT OFFICE.

KARL FRANZ SCHALLER, OF VIENNA, AUSTRIA-HUNGARY.

FOLDING FIELD-FORGE.

SPECIFICATION forming part of Letters Patent No. 772,675, dated October 18, 1904.

Application filed July 14, 1904. Serial No. 216,623. (No model.)

To all whom it may concern:

Be it known that I, KARL FRANZ SCHALLER, a citizen of the Empire of Austria-Hungary, residing at Vienna, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Folding Field-Forges, of which the following is a specification.

The invention relates to an improved field-forge of which the operative parts may be stored within the hearth-box, so that the forge can be readily packed for transportation; and the object of the invention is the provision of a device of this class in which the fan and the fan-operating mechanism can be stored so as to take up very little space, while at the same time the device is rigid and effective when in use.

With these and other objects in view the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

One form of construction of the forge is illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation, partly in section, of the improved folding field-forge. Fig. 2 is a side elevation, partly in section, on line 2 2, Fig. 1, showing the forge ready for use; and Fig. 3 is a view of the forge as seen from below when folded with the lids open.

Similar characters of reference indicate corresponding parts.

The forge comprises a box *a*, formed by the hearth-plate and hearth and the sides and provided with two hinged lids *j* upon the lower edges. The legs of the forge are rigidly fixed to each other in pairs *b b* and *c c* at their lower ends by rods *d* and *e*, respectively, and attached by their upper ends upon the interior of the box *a* to the sides of the box so as to pivot on the points *f*. When the forge is in use, the pairs of legs are firmly connected to each other by rods *g*, attached to them at one end by eyes and at the other by means of hooks. When the forge is ready for use, the legs *b* and *c* rest, on the one hand, against the sides of the box *a*, and, on the other hand, a projection *h* upon them abuts against stops *i* in order to give greater stability to the forge. The two lids *j* are attached to the box *a* by hinges *k* and, as shown in Fig. 1, can be turned back. In order to maintain the lids *j* in the horizontal position, they have struts *m* attached to them, which are hinged to the lids at the point *l* and which when the forge is ready for use are secured in position upon the legs *b* by a stud *o*. When the forge is not in use, the said struts are held in the position shown in Fig. 3 by the clips or catches *p*, riveted or otherwise secured to the lids *j*.

The casing *r* of the fan is supported in the box *a* on pivots formed by the blast-nozzle *u*, which is let into the box *t*, attached to the continuation *s* of the wind-chest, and a lug *v*, screwed into the front wall of the box *a*. Between the pulley *y*, fixed on the fan-shaft, and the fan-casing is loosely fitted a bar *z*, made of U-iron, which at its upper end is supported on the neck of the shaft *x*. A slide-block 1, carrying a stud 2, is adjustable along said bar, and on said stud 2 is journaled a fly-wheel 3, which drives the pulley *y* of the fan by means of the belt 4. In order to be able to adjust the belt 4 to proper tension, the cross-bar *z* is provided with two short longitudinal slots 5, in which two screws with thumb-nuts 6, Fig. 2, are fitted, said screws extending through the slide-block 1 and permitting the clamping of the same after its adjustment is effected. The slide-block 1 is shifted by means of a screw 7 working in a nut arranged in a projection 8 of the cross-bar *z*, Fig. 3. In the lower end of the cross-bar *z* a stud 9 is fixed, forming the bearing of the treadle-lever 10, as well as the pivot for the stay-bar 11. The treadle-lever 10, which folds on a hinge 12, is attached at one end to a pitman 13, which drives the fly-wheel 3, and at the other end to the treadle-plate 14, which is adapted to fold back on hinges 15. For the purpose of steadying the cross-bar *z* when the forge is in use a stay 11 is secured at its end 16 to a clamp-screw 17, fixed in the leg *b* and pressed against the leg, tightening up the clamp-screw. The fastening of the stay-bar 11, and with it of the entire fan-driving arrangement, may also be arranged in any other suitable manner based on the same principle.

The folding up of the forge is effected as

follows: After the screw 17 has been loosened the stay-bar 11 is detached from it, the treadle-lever 10 is folded up on its hinge 12, and the treadle-plate 14 on its hinge 15, so that the cross-bar *z*, together with all the parts permanently attached to it, can be readily swung on the fan-shaft *x* up in the direction of the longitudinal axis of the box *a*. The fan-casing *r*, with the parts supported on the bar *z*, is then swung on its pivots *t* and *v* from its vertical position into a position parallel with the top of the box *a*, as shown in Fig. 3, in which position the fly-wheel is conveniently stored in the box. The legs *b* and *c* are then folded alongside of the walls of the box *a*, and finally the lids *j*, forming the lid of the box, closed over the fan-casing, fly-wheel, and legs, and the forge is ready for transportation. When it is required for use, the lids are opened, the legs unfolded and locked, the fan-casing swung back into vertical position on its pivot, the fly-wheel, with the bar, swung down and locked, and the treadle readily folded into position for use.

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

1. In a folding field-forge, the combination of a box having a bottom opening and a closure for the same, a hearth carried by said box, a blast-nozzle within said box and in communication with said hearth, a fan-casing pivoted to said blast-nozzle and box, a fan in said casing, and fan-operating mechanism carried by said casing and foldable with the casing into said box.

2. In a folding field-forge, the combination of a hearth-box having a bottom opening and a closure for the same, supporting-legs foldable in said box, a fan-casing pivoted in said box, a fan in said casing, a bar depending from the fan-shaft, fan-operating mechanism carried by said bar, and means for rigidly locking said bar to one of said supporting-legs when the forge is in operative position.

3. In a folding field-forge, the combination of a hearth-box having a bottom opening and a closure therefor, supporting means foldable within said box, a fan-casing pivoted in said box, a fan in said casing, a bar depending from the fan-shaft and foldable within said box, a fan-operating fly-wheel carried by said bar, means for locking said bar in fixed operative position, and a foldable fly-wheel-actuating treadle fulcrumed upon said bar.

4. In a folding field-forge, the combination, with a hearth-box having a bottom opening, and hinged lids for closing said opening, of a fan-casing pivoted to said hearth and box, a fan in said casing, and means for driving the fan supported on the fan-shaft, said fan-casing and driving mechanism being adapted to be swung up to the hearth and into the box so as to be completely stored therein when not required for use.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

KARL FRANZ SCHALLER.

Witnesses:
ALBERT BENCKE,
ALVESTO S. HOGUE.