

G. SCOTT.
Stove-Pipe Fitter.

No. 134,170.

Patented Dec. 24, 1872.

FIG. 1.

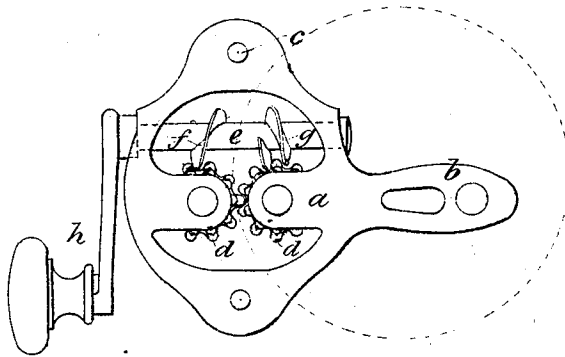


FIG. 2.

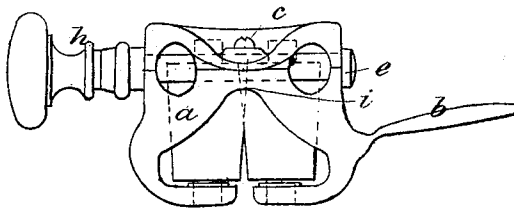


FIG. 3.

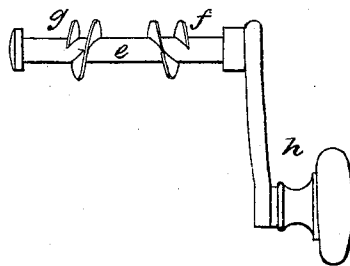


FIG. 5.

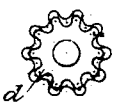
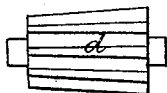


FIG. 4.



Witnesses

Charles L. Simpson
Frederick Reynolds

Inventor

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UNITED STATES PATENT OFFICE.

GEORGE SCOTT, OF MONTREAL, CANADA.

IMPROVEMENT IN STOVE-PIPE FITTERS.

Specification forming part of Letters Patent No. 134,170, dated December 24, 1872.

To all whom it may concern:

Be it known that I, GEORGE SCOTT, of the city of Montreal, in the District of Montreal, in the Province of Quebec, Canada, have invented new and useful Improvements on Machines or Appliances used for Fitting Stove-Pipes together; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, where—

Figure 1 represents a front elevation of my invention. Fig. 2 represents a side elevation of Fig. 1. Fig. 3 represents a detail. Fig. 4 represents a detail; and Fig. 5 represents a detail.

This invention has reference to the construction of a portable machine to be used for fitting stove-pipes together, to perform the same in a neater manner and with less trouble than by any of the appliances now in use for that purpose, and is adapted to any and all ordinary sizes of pipes in use.

The difficulty usually found to exist is, that when stove-pipes are put together it is common to find a great variation from the nominal size, and that in many of the lengths the end that is supposed to fit within that of the other is very far from doing so.

The ordinary plan of overcoming this difficulty is to cut a slit up one pipe and contract the cut end, then force it into the other. This forms not only a very imperfect, but also an unsightly joint. Another plan is to put a large corrugation in the end to reduce its diameter. This is equally objectionable, as, although the pipes may be got together, the joint thus made is far from a closely-fitting one.

In the drawing similar letters of reference indicate like parts.

Letter *a* is a frame made in two parts for holding the moving portions of the machine together; this is provided with a projection, *b*, forming a handle. The top and bottom halves of the frame are attached together by any suitable screws, *c*, and in the frame eyes are formed to receive the ends of two corrugated and tapered rollers, *d d*, and hold them together, as shown in the drawing. The back or larger ends of these rollers mesh together in every respect as gear-wheels, and by their

taper the amount of interlock of the teeth or corrugations decreases to admit of an entire separation at the smaller end capable of allowing the thickness of sheet metal to be acted upon to be introduced between them. *e* is a shaft held in the required position by the frame *a*, eyes for this purpose being formed in it where the top and bottom come together, the latter being the cap of the bearings. On the shaft *e*, and made in one with it, are two threads, *f* and *g*, situated as shown in the drawing, and arranged to intermesh with the teeth or corrugations of the rollers *d*; the pitch of the thread *f* is left-handed, while that of *g* is right-handed, and they must be made sufficiently coarse to agree with the teeth of the gears *d*, care being taken to have them in the proper position on the shaft *e*, so that each thread engages with the teeth of each wheel when the wheels are properly in gear. The shaft *e* is actuated by any suitable crank-handle, *h*, attached, or made in one with it. This gives a large amount of leverage, which is required in working the sheet metal to be operated upon, the crank *h* being rotated one revolution for each tooth in either of the wheels.

The operation of fitting the pipes together is as follows: Having determined on the end of the pipe to be put with the other, I place its edge between the smaller ends of the rollers *d*, as indicated by the large dotted circle in Fig. 1, and, by pressure applied with the hand and the top of the frame *a*, I force the rollers on it at the seam the required amount, or until its edge comes in contact with the frame at the point *i*, shown in Fig. 2, and, by means of the crank *h*, rotate the shaft *e*, causing the corrugated rollers to travel in the direction from the seam until they come up to it again on the other side. This operation corrugates the pipe at its edge completely around its circumference, with the exception of the seam. The corrugations thus formed at the edge extend backward, but, in doing so, they diminish in depth till they run out to nothing at the required distance—*i. e.*, the extent that this end of the pipe is desired to enter within the other. This is due to the length and taper given to the rollers *d d*, and it will be seen that, by the use of my appa-

ratus, a joint at once sightly and close fitting can always be formed between two stove-pipes.

Having thus described my invention, what I claim is as follows—

The tapered corrugated rollers *d*, in combination with shaft *e*, threads *f* and *g*, and

crank *h*, substantially as and for the purposes set forth.

Montreal, 22d day of August, A. D. 1872.

GEORGE SCOTT.

Witnesses:

CHARLES G. C. SIMPSON,
FRAS. HY. REYNOLDS.