

D. R. RUSSELL.

Fire Tongs.

No. 87,876.

Patented March 16, 1869.

Fig. 1.

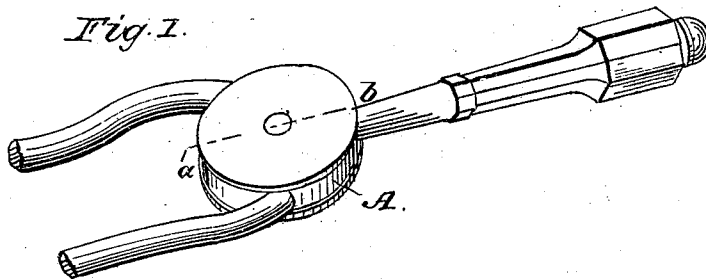


Fig. 2.

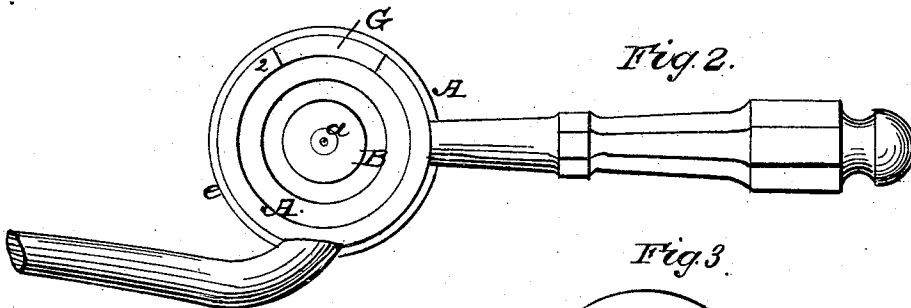


Fig. 3.

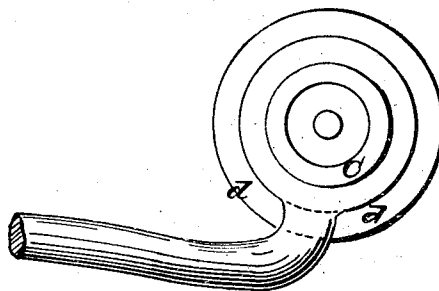
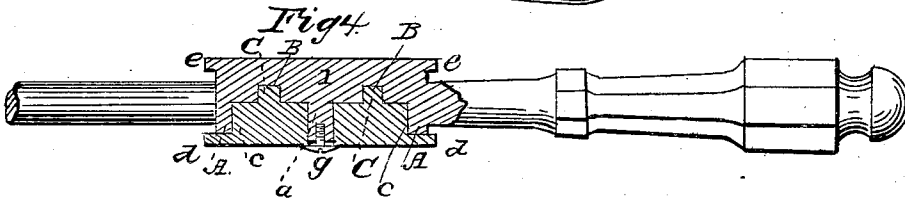


Fig. 4.



Witnesses;
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DANIEL R. RUSSELL, OF CARROLLTON, MISSISSIPPI.

Letters Patent No. 87,876, dated March 16, 1869.

IMPROVEMENT IN FIRE-TONGS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, DANIEL R. RUSSELL, of Carrollton, in the county of Carroll, and State of Mississippi, have invented a certain new and useful Improvement in Fire-Tongs; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of a pair of tongs, as when made on my plan, with a part of the legs broken off;

Figure 2, an inside view of one of the parts of which the tongs are composed;

Figure 3, a similar view of the other part; and

Figure 4, a sectional view of the two parts when united, the bisection being through line *a b*, fig. 1.

My object is to make tongs which will neither bite nor pinch the fingers of the person using them, nor wobble in their legs, from side to side, after they have been a little while used, as is now the case with tongs of every form of construction of which I have any knowledge.

In other words, my improvement is designed completely to remedy the defects that characterize present modes of constructing tongs, at the point at which their legs are united, without essentially altering their external appearance, and to produce an article in which the legs cannot be moved in a sidewise direction, and all joints are dispensed with that are liable to pinch the hands or fingers of the person handling the same.

My invention is very simple in its nature, and it consists simply in providing three distinct points of reciprocal bearing, as between the two parts of which a pair of tongs is composed, at and within the respective enlarged circular parts thereof, at which these two parts are joined together and the legs are pivoted, in order to be opened and closed.

But my invention will be better and more quickly understood by referring to the drawing, which illustrates it in visible form in all its parts.

An inspection of fig. 1 will show that my improvement does not, in any material particular, change the outside appearance or mechanical construction of a pair of tongs in which it is embodied, and that hence, any external appearance and finish may be adopted which will suit the taste or fancy of the manufacturer.

The tongs that are delineated on the drawings, consist of two parts, respectively shown at figs. 2 and 3; fig. 2 representing the part in which the handle is embraced, and fig. 3, the other part, the leg in both being broken off.

Both these figures show the relation of the expanded circular portion of each, at which the two parts are united, to the leg which forms a part of each; fig. 2 showing also the relation of the handle to this portion.

The part delineated at fig. 2, and marked 1 in the sectional view at fig. 4, is so constructed as to receive the other part, as shown at the latter figure, in such

manner as not only to present a bearing around the perimeter of this said other part, but also to provide a groove, to receive a concentric tongue that projects from the latter, and at the same time a central pivot for the two legs of the tongs; that is to say, the part represented at fig. 2 is provided with an external rim, *A*, a concentric groove, *B*, and a central circular pin, *a*, while the part delineated at fig. 3, is so made as to fit closely within the rim *A*, as shown at *c*, fig. 4, and to be provided with a concentric tongue, *C*, that takes into the groove *B*, as shown also at fig. 4, and a horizontally-projecting circumferential ledge, *d*, exactly corresponding with a similarly-projecting ledge, *e*, on the other part, as shown.

The ledge *d* covers the joint between the perimeter *c* of the one part, and the rim *A* around the other, and affords a means for securing a symmetrical finish on both sides of the tongs, as shown at fig. 1.

As shown on the drawing, the overlapping edge, or ledge *d*, of the part shown at fig. 3, is permanently connected to this part, but obviously it might be made separately, so as to be in effect a covering-plate that is detachable, as in the case of tongs of ordinary construction.

The two parts are held together by a single screw, *g*, as shown, or, if preferred, by a pivot-pin extending through both parts, and secured by an outside tap at one of its ends, and a correspondingly-formed head on the other.

It will be seen that my improvement secures three distinct bearings for the legs at the point of their articulation, to wit, at the perimeter *c*, by means of the tongue *C* and groove *B*, and around the central pin *a*, so that when the parts are tightly secured together, it is impossible for any sidewise deflection of the legs to take place, and consequently for the tongs ever to pinch the hands or fingers under any circumstances whatever.

The extent to which the legs may be opened, is determined by the length of the section that is cut out of the rim *A*, as shown at *G*, fig. 2, it being only necessary, in all cases, so to make the cut, that when the tongs are closed, there will be a close fit between the leg that plays in said cut and the end of the rim at 2.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

So constructing fire-tongs as to provide, at the point at which the legs are joined together, and articulate, three distinct bearings—the first between the perimeter *c* of one part, and the rim *A* of the other; the second, by means of a tongue, *C*, and a groove, *B*; and the third, around a central pivot-pin, *a*, or its equivalent, substantially as herein described for the purpose set forth.

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Witnesses:

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