(No Model.)

E. BROOKES.

TOASTING FORK.

No. 270,277. Patented Jan. 9, 1883.

Fig. 1.

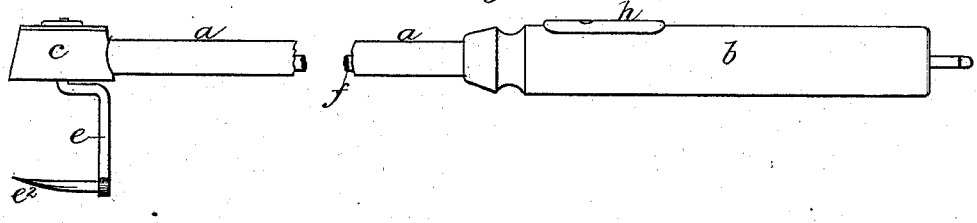


Fig. 2.

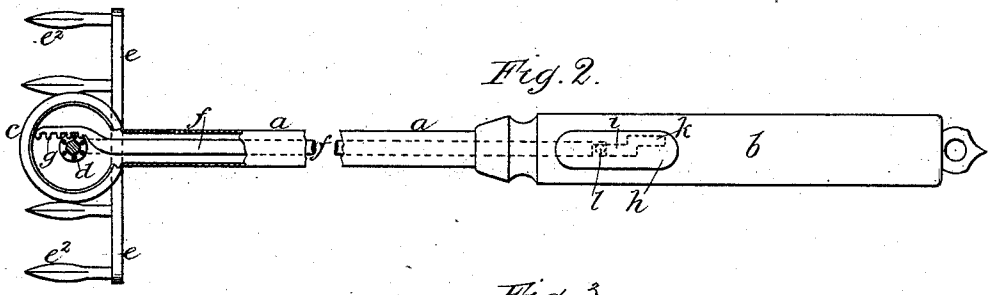


Fig. 3.

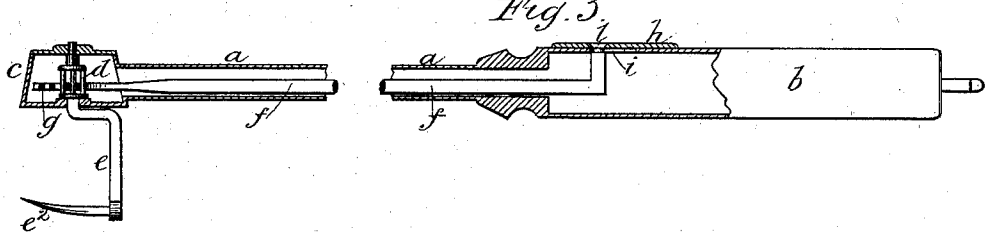


Fig. 4.

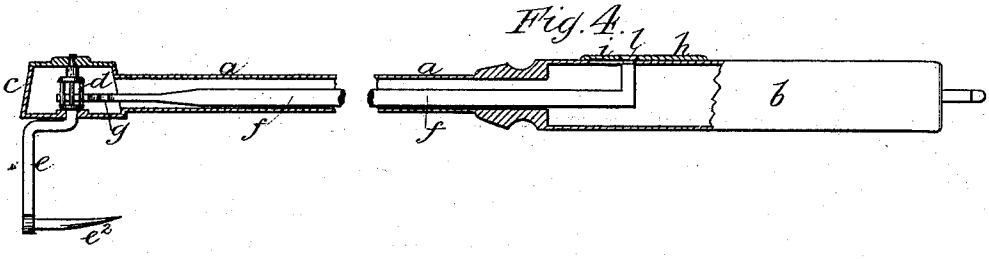
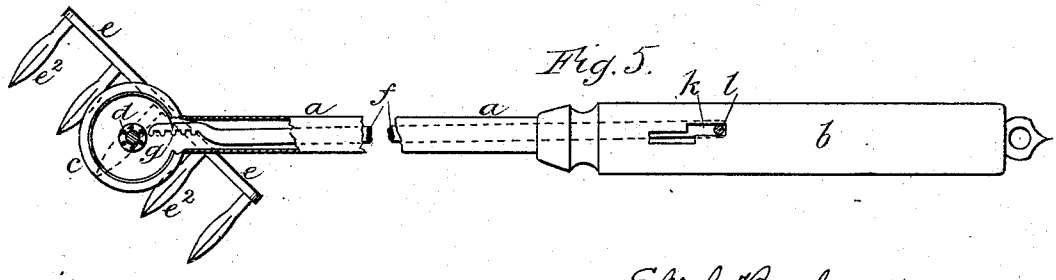


Fig. 5.



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UNITED STATES PATENT OFFICE.

ELIJAH BROOKES, OF HAWARDEN, COUNTY OF FLINT, ENGLAND.

TOASTING-FORK.

SPECIFICATION forming part of Letters Patent No. 270,277, dated January 9, 1883.

Application filed October 25, 1882. (No model.) Patented in England January 24, 1881, No. 318; in France July 15, 1881, No. 143,949; in Germany July 15, 1881, No. 17,505, and in Belgium July 18, 1881, No. 55,203.

To all whom it may concern:

Be it known that I, ELIJAH BROOKES, a subject of the Queen of Great Britain, residing at Hawarden, in the county of Flint, Great Britain, have invented a new or Improved Reversible and Adjustable Toasting-Fork, (for which I have obtained patents in the following countries—videlicet, in Great Britain, No. 318, bearing date 24th January, and sealed 26th April, 1881; in France, No. 143,949, bearing date 15th July, 1881; in Germany, No. 17,505, bearing date 15th July, 1881; and in Belgium, No. 55,203, bearing date 18th July, 1881,) of which the following is a specification.

My invention consists of a new or improved reversible and adjustable toasting-fork, the parts of which are constructed and combined or arranged in the manner hereinafter described.

I make the handle of the toasting-fork hollow or tubular, and at one end of the said hollow handle I attach a circular box or chamber, in which a pinion works. To the axis of the said pinion a cranked vertical rod, projecting on the under side of the box or chamber, is connected, the bottom of the said rod carrying the horizontal prongs of the fork. The said prongs are capable of being rotated through a semicircle, so as to reverse the position of the prongs, and the said prongs are also capable of being placed at any desired inclination with respect to the handle.

The reversing of the prongs is effected in the following manner: In the hollow handle of the fork is a sliding rod, one end of which passes to the gripping part of the handle, and the other end passes into the box or chamber containing the pinion to which the axis or rod of the rotating prongs is connected. The last-named end of the sliding rod is furnished with a rack, the teeth of which gear with the teeth of the pinion. The sliding in one or other direction of the rod causes the semi-rotation of the prongs, so that their points may either be presented to the person holding the toasting-fork or be turned from him. The sliding rod is moved for reversing the prongs by means of a thumb-plate on the outside of the gripping part of the handle, the stem of the thumb-plate being connected with and working in a slot in the grip part of the handle. This slot consists of two parts (not in the same line) joined at their middle by a short cross-slot. By moving the thumb-plate in the lower half of the slot the rack can be made to reverse the prongs; but the rack cannot be ungeared from the pinion so long as the thumb-plate is situated in the lower half of the slot. In order to adjust the inclination of the prongs to the handle it is necessary to ungear the rack from the pinion. This is effected by moving the thumb-plate to the top of the lower half of the slot and turning the thumb-plate aside, when its stem passes through the cross-slot into the upper half of the slot. By now moving the thumb-plate in the said upper half of the slot the rack is ungeared from the pinion and the angle or inclination of the prongs to the handle may be adjusted. After the adjustment or setting of the prongs, the thumb-plate is returned to the lower half of the slot, when the rack is re-engaged with the pinion, and is ready when required to reverse the prongs.

I will now proceed to describe with respect to the accompanying drawings the manner in which my invention is to be performed.

Figure 1 represents in side elevation, Fig. 2 in plan, partly in horizontal section, and Figs. 3 and 4 in vertical section, my new or improved reversible and adjustable toasting-fork. Fig. 5 represents the parts in position for the adjustment of the fork, as hereinafter explained, the thumb-plate being omitted.

The same letters of reference indicate the same parts in the several figures of the drawings.

a is the hollow or tubular handle of the toasting-fork, a portion only of which is represented, and *b* is the grip part of the said handle.

To the end of the hollow handle *a* a circular box or chamber, *c*, is connected in which a pinion, *d*, works, the said pinion turning in bearings at the top and bottom of the box or chamber *c*. (See Figs. 3 and 4.) To this pinion *d* a cranked vertical rod, *e*, projecting on the under side of the box or chamber is secured. The rod *e* carries the horizontal prongs e^2 e^2 of the fork. In the hollow handle *a b* is a sliding rod, *f*, having at one end a rack, *g*, which gears with the pinion *d*, connected with the

fork $e\ e^2$. The opposite end of the sliding rod f is bent at right angles, and is secured to a thumb-plate, h, sliding on the grip part b of the handle. In the said grip part b is a slot in which the pin l, which connects the sliding rod f with the thumb-plate h, works. This slot consists of two parts, (marked respectively $i\ k$,) not in the same line, the said parts $i\ k$ being joined at their middle by a short cross-slot, as best seen in Fig. 5. When the pin l is situated in the part i of the slot the rack g of the sliding rod f is in gear with the pinion d, and the sliding in one or other direction of the thumb-plate h causes a like motion to be given to the rod f. The motion of the rod f is transmitted through the rack and pinion $g\ d$ to the fork $e\ e^2$, and a semi-rotation in one or other direction is thereby given to the said fork, and the position of its prongs reversed, as illustrated in Figs. 1, 2, 3, and 4.

In Figs. 1, 2, and 3 the points of the prongs are represented turned from the person holding the toasting-fork, the pin l of the thumb-plate h being at the top of the slot i in one direction. In Fig. 4 the fork is represented reversed—that is, a semi-rotation has been given to it—so as to present the points of the prongs to the person holding the toasting-fork, the thumb-plate h having been moved in the direction proper to bring the pin l to the other end of the slot i in which it works.

For the purpose of adjusting the inclination of the fork $e\ e^2$ to the handle $a\ b$, or to set it parallel to the said handle, it is necessary to ungear the rack g from the pinion d, as represented in Fig. 5. This is effected by moving the thumb-plate h so as to bring its pin l to the middle of the slot $i\ k$. The thumb-plate h is then turned aside, when the pin l passes into the upper half, k, of the slot, and, being brought into the position represented in Fig. 5, ungears the rack g from the pinion d. The fork $e\ e^2$ is now free to be turned in either direction, so as to set it at the desired inclination with respect to the handle. After the adjustment or setting of the prongs, the thumb-plate h is moved so as to bring the pin l into the lower half or part, i, of the slot, when the rack is regeared with the pinion, and is ready to reverse the position of the prongs when required.

By the power of reversing the position of the prongs which my invention possesses both sides of the food may be toasted without removing it from the prongs, and by the power of adjustment of the prongs which my invention possesses the prongs may be arranged at right angles, to the handle, or parallel thereto, or inclined on one or other side of the handle, at the will of the person using the toasting-fork.

Having now described the nature of my invention and the manner in which the same is to be performed, I wish it to be understood that I claim as my invention—

The new or improved reversible and adjustable toasting-fork hereinbefore described, and illustrated in the accompanying drawings, the fork proper being capable of being reversed by moving it through a semi-rotation substantially in the manner described and illustrated, and capable of being set or adjusted either parallel or at any inclination to the handle of the toasting-fork, substantially in the manner described and illustrated.

ELIJAH BROOKES.

Witnesses:
ALFRED WRIGHT,
JAMES CRAVEN.