

No. 859,664.

PATENTED JULY 9, 1907.

F. JOTTRAND & P. SLUYS.
HAND BRACE BLOWPIPE.
APPLICATION FILED MAR. 13, 1907.

Fig. 1.

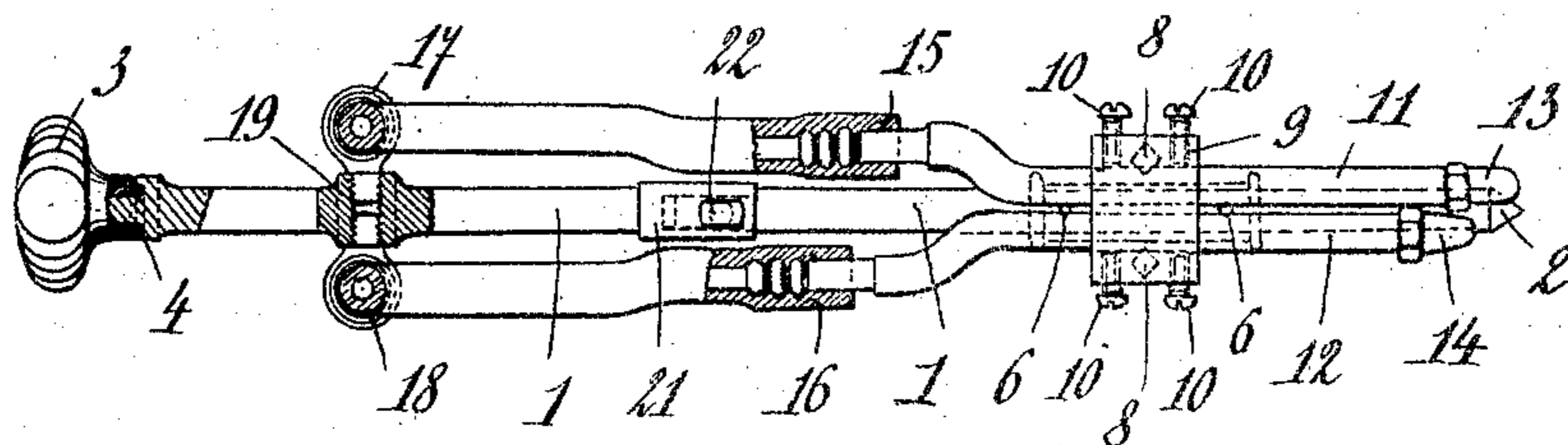


Fig. 2.

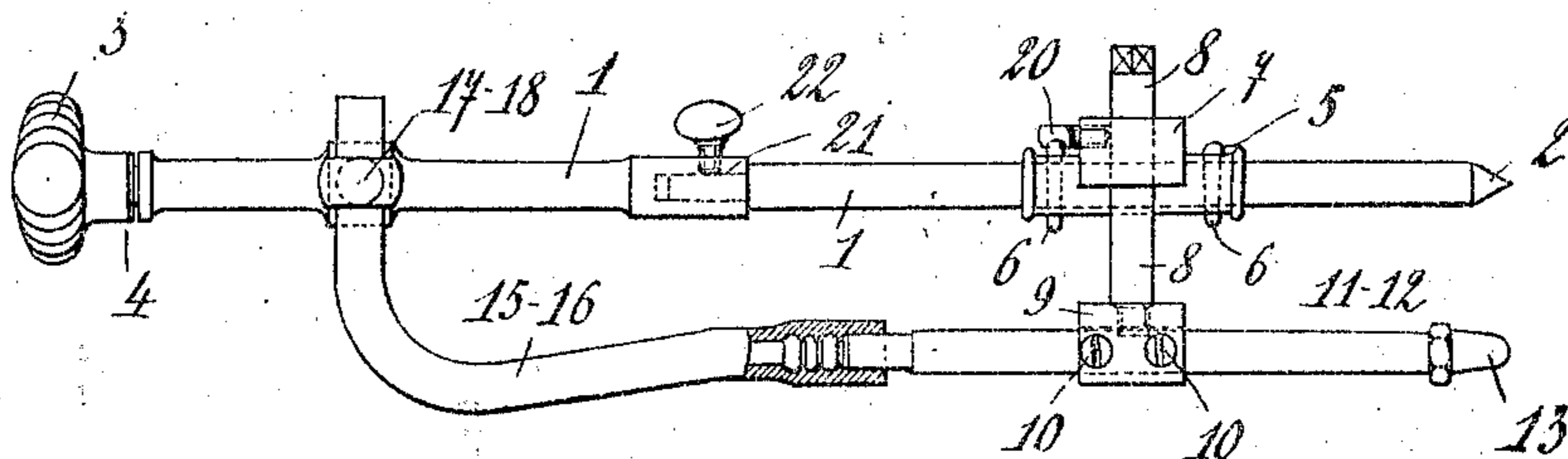
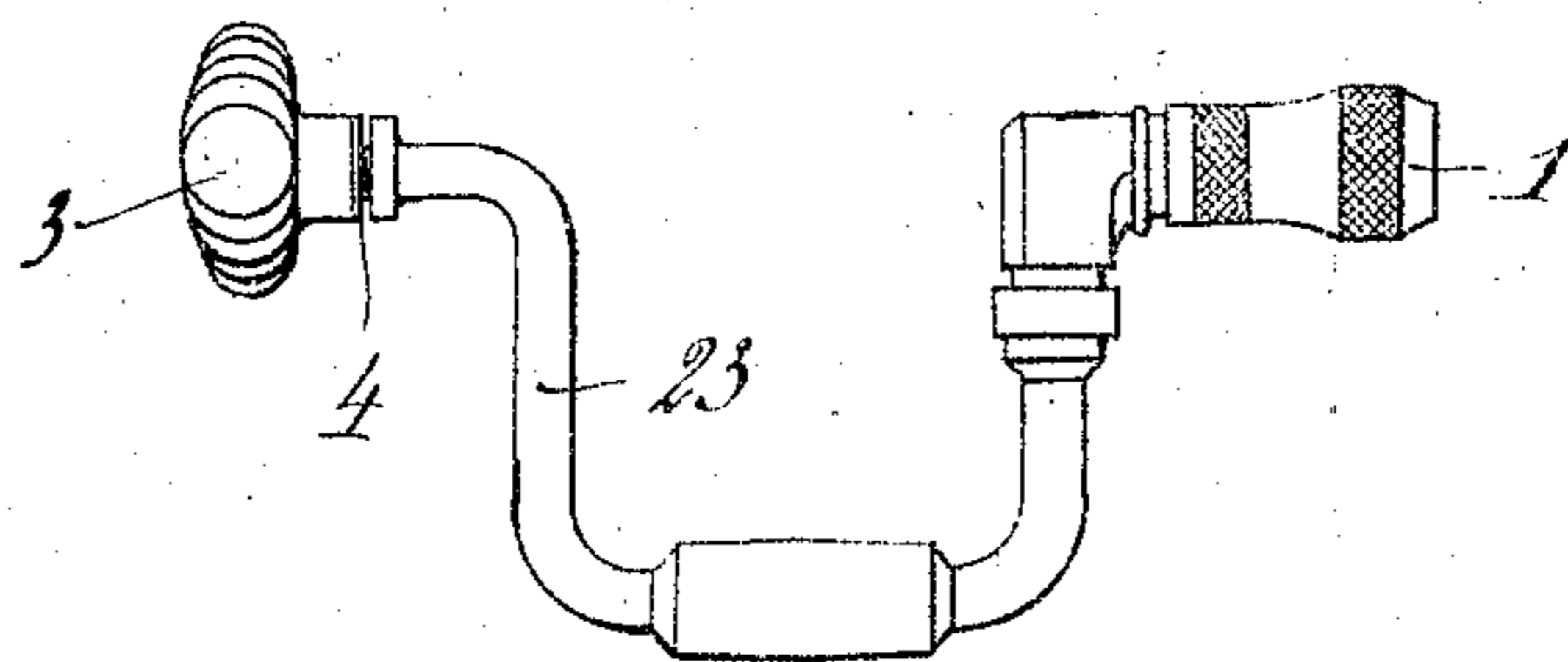


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

FELIX JOTTRAND, OF UCCLE, NEAR BRUSSELS, AND PAUL SLUYS, OF YXELLES, BRUSSELS, BELGIUM, ASSIGNORS TO SOCIÉTÉ ANONYME L'OXHYDRIQUE INTERNATIONALE, OF BRUSSELS, BELGIUM.

HAND-BRACE BLOWPIPE.

No. 869,564.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed March 12, 1907. Serial No. 362,110.

To all whom it may concern:

Be it known that FELIX JOTTRAND and PAUL SLUYS, subjects of Belgium, residing at Uccle, near Brussels, and at Yxelles, Brussels, Belgium, have invented new and useful improvements in Hand-Brace Blowpipes, of which the following is a specification.

The present invention relates to a blowpipe (called a hand brace blowpipe) which serves to cut sheet metal by means of a heating blowpipe and an oxygen jet, along curves of any desired radius and in any position of the metal-plate, that is to say, whether it is vertical or inclined in one sense or in another.

According to this invention the burners of the blowpipe properly speaking, which direct upon the object to be cut the heating flame and the oxygen jet, are held through the intermediary of a sleeve and a rod of adjustable length, in a sleeve made in one piece with a principal rod provided with a sharp point and a handle and arranged so that it can easily turn between the said handle and the point. Owing to this arrangement the cutting may be effected by simply pressing on the handle of the main rod, so as to keep the apparatus in contact with the sheet metal or other object to be cut and then turning the blowpipe about this rod, so as to describe on the object to be cut a circle of the desired diameter.

The accompanying drawing shows by way of example an apparatus embodying this invention.

Figures 1 and 2 are two views of the entire apparatus at right angles to each other. Fig. 3 shows separately the cranked shape, which the rod holding the blowpipe may assume, and which gives to the apparatus the appearance of a hand brace.

As shown by Figs. 1 and 2, the apparatus is composed of a main rod 1 armed with a point 2 and with a handle 3 mounted so that it can turn freely on the rod 1, for instance by means of a ball bearing 4. The rod 1 carries a sleeve 5 secured by means of pins or keys 6 and made in one piece with the lugs 7, through which pass two rods 8 carrying a block 9, in which are held by means of set screws 10, two pipes 11 and 12 provided with nozzles 13 and 14, one of which serves to direct on the sheet metal a heating flame and the other supplies a jet of oxygen under pressure. These pipes 11 and 12 are coupled with india-rubber pipes 15 and 16 passing through eyes 17 and 18 mounted at 19 in the rod 1. These pipes are connected in the usual manner with the reservoirs or gas-holders which supply the gas mixture for feeding the heating flame, and also the pure oxygen. It will be readily understood, that the operator can easily regulate the radius of the curve along which the sheet or plate is to be cut. For this purpose he need

only regulate the position of the rods 8 in the lugs or eyes 7 by means of the set screws 20.

For setting the apparatus in action, the operator presses the point 2 against the sheet metal and keeps it in contact with the same by means of the handle 3, on which he presses with the hand or with the chest, according to the position of the sheet or plate to be cut. After having ignited the heating jet emerging from the nozzle 14, he turns the rod 1 about its longitudinal axis, so that the blowpipe tubes 11 and 12 describe a circle, having the point 2 for its center, and for its radius the distance of the blowpipes 11 and 12 from the axis of the rod 1. The rod 1 is preferably composed of two pieces coupled together by a sleeve 21 provided with a set screw 22. This arrangement enables the operator to exchange the straight upper part of this rod for the bent arm 23 shown separately in Fig. 3. By means of this arm it is in certain cases more convenient to turn the main rod 1, and it gives to the entire apparatus the appearance of an ordinary hand-brace.

Having thus described our invention, what we claim is:

1. A hand brace-blowpipe comprising a main rod armed with a point, a handle on said rod and means for supporting two blowpipes at a distance from said rod and causing said blowpipes to describe a circle around said rod substantially as described and for the purpose set forth.

2. A hand brace-blowpipe comprising a main rod armed with a point, a handle on said rod, a heating blowpipe and an oxygen blowpipe supported by said rod and means for causing the said blowpipes to describe a circle around said rod, substantially as described and for the purpose set forth.

3. A hand brace-blowpipe comprising a main rod armed with a point, a handle on said rod, a sleeve fixed on said rod, two rods 8 adjustable in said sleeve, a block 9 carried by said rods 8, a heating blowpipe and an oxygen blowpipe adjustable in said block and means for causing the said blowpipes to describe a circle around the main rod substantially as described and for the purpose set forth.

4. A hand brace-blowpipe comprising a main rod armed with a point, a handle adapted to turn freely on said rod, a sleeve fixed on said rod, two rods 8 adjustable transversely in said sleeve, a block 9 carried by said rods 8, a heating blowpipe and an oxygen blowpipe adjustable longitudinally in said block, feeding pipes connected to said blowpipes, the said feeding pipes being supported on the main rod and means for causing the said blowpipes to describe a circle around the main rod, substantially as described and for the purpose set forth.

5. A hand brace blowpipe comprising a main rod armed with a point, the said main rod being composed of two pieces, a sleeve connecting the said two pieces together, a handle adapted to turn freely on one of the pieces of the main rod, a second sleeve fixed on the second piece of the main rod, two rods 8 adjustable transversely in said sec-

and sleeve, a block 9 carried by said rods 8 a heating blowpipe and an oxygen blowpipe adjustable longitudinally in said block, feeding pipes connected to the blowpipe, the said feeding pipes being supported on the main rod and means for causing the said blowpipes to describe a circle around the main rod substantially as described and for the purpose set forth.

10 A hand brace-blowpipe comprising a main rod armed with a point, a bent arm connected to said rod, a handle adapted to turn freely on the bent arm, a sleeve fixed on the main rod, two rods 9 adjustable transversely in said

sleeve, a block carried by said rods 8 and a heating blowpipe and an oxygen blowpipe, the said blowpipes being adjustable longitudinally in the said block, substantially as described and for the purpose set forth. 15

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FELIX JOTTRAND,
PAUL BLUYS.

Witnesses:

SPRUITO FERNARDI,
GREGORY PHILLAN.