

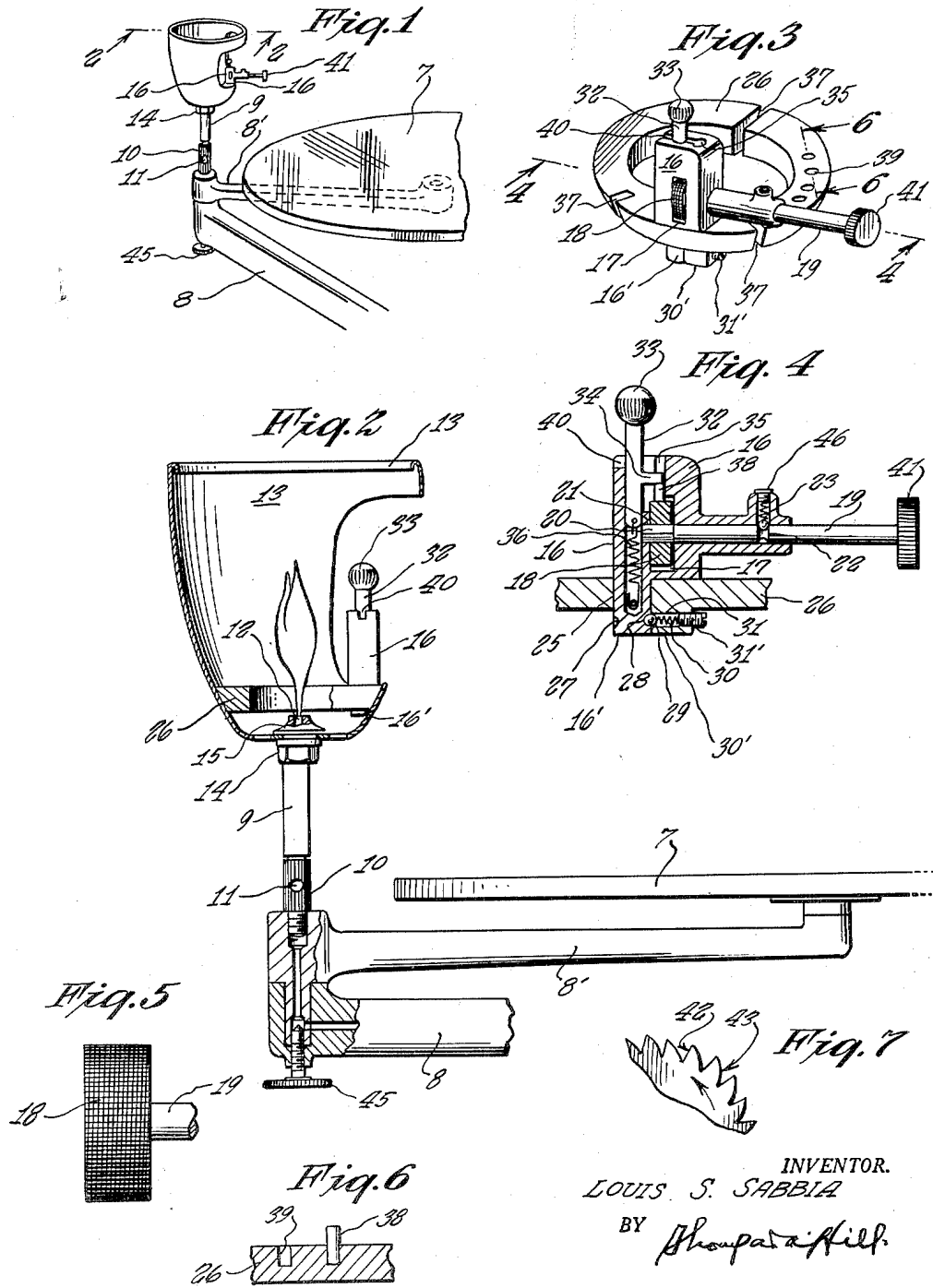
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L. S. SABBIA

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LIGHTER

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INVENTOR.
LOUIS S. SABBIA

BY *Thomas A. Hill*

ATTORNEY

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LIGHTER

Louis S. Sabbia, Brooklyn, N. Y.

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6 Claims. (Cl. 67-201)

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My invention relates to improvements in lighters and more particularly, has reference to means associated with a gas burner, such as for a Bunsen flame employed in dental operations, usually adjacent the operating chair and is intended to ignite the gas without the use of matches.

In the accompanying drawings, I have illustrated a suitable application of my invention as associated with the work tray or table, generally pivotally mounted in adjustable relation to the chair. Referring thereto, Fig. 1 illustrates the same in perspective, parts being broken away. Fig. 2 is an enlarged sectional elevation of the burner, guard or work holder and a side view of the lighter, on the line 2-2 of Fig. 1. Fig. 3 is a perspective view of the lighter, as a removable attachment, adapted for right or left-handed use and for clockwise and counterclockwise operation. Fig. 4 is an enlarged sectional elevation of the same on the line 4-4 of Fig. 3. Fig. 5, is a side elevation of a preferred form of replaceable flint-wheel. Fig. 6 is a section on the line 6-6 of Fig. 3, showing pockets or holes for removably securing extra flints for use in the lighter and Fig. 7 is an enlarged side elevation of part of a preferred form of flint cutting wheel.

7 indicates a conventional form of adjustable table for the dental tools, etc. pivotally mounted on arms, 8', as shown, and arm 8 may be mounted upon the usual standard or support (not shown), through which the gas is supplied to the Bunsen, through burner tube 9, with air valve 11, which regulates the mixture of air and gas by rotation of sleeve 10, to expose or cover, more or less, port 11, a predetermined amount. 12 is the gas orifice or burner and 13 is a cup-like guard and support surrounding the orifice and held on the burner as indicated at 14, 15.

The lighter standard is indicated at 16 and is provided with passage 17, for flint-wheel 18, rotatably mounted therein, upon shaft 19, having a square inner end 20, engaging a square hole in the wheel 18, and a round hole at 21 in the lighter standard 16, 22 indicating an annular recess or channel 22 in shaft 19 for ball 23, projected by compression spring 24, beneath threaded cap 46, to hold and lock said shaft while it engages wheel 18.

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The standard 16 of the lighter may be provided with a rounded base projection 16', to rotatably engage hole 25, in the ring support 26, of the lighter and may be provided with diametrically opposed recesses or pockets 27, 28, for ball 29, projected by spring 30, in pocket 31, with plug 31', beneath ring 26, to permit standard 16 to be rotated about 180°, and held in its adjusted position by ball 29, the housing 30' being fixed with relation to ring 26, and serving to retain the standard in its adjusted position, according to the seating of ball 29 in pocket 27 or 28. The periphery of wheel 18 may be cut spirally and axially or transversely, as shown in Fig. 5, to provide cutters with radial walls 42 at the cutting sides and substantially tangential walls 43 at the trailing sides thereof, as shown.

In operation, the expansion ring 26, provided with radial cuts 37, is compressed when forced into the bottom of the cup-guard or support 13, where it is thus frictionally held when released. A flint 38 may then be taken from a reserve pocket 39, and after plunger 32 has been raised against spring 36 and turned by button 35 and seated in recess 40, a flint 38 is dropped into chute 35, where it comes to rest upon the exposed surface of flint-wheel 18 and is held by offset 34, as shown. By now turning on the gas at 45, then rotating the wheel 18, by turning the knurled finger piece 41, sparks from the end of the flint 18 are discharged from the cutting surface of the wheel 18 in the path of the escaping gas, which is thereby ignited and this mode of operation follows, whether shaft 19 projects rightwardly or leftwardly from guard 13, the pockets 27, 28, and ball 29, serving to frictionally hold the lighter standard 16' in position according to the adjustment made.

Of course it will be understood that various modifications may be made in the construction without departing from the spirit of the invention, as claimed.

I claim:

1. In combination with a dentist's lamp having the usual guard with a lateral opening through the side thereof, a lighter having a split ring base within, conforming to and frictionally engaging a bottom portion of said guard, a lighter standard thereon, a scratch-wheel and flint in

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said standard, and means extending through said opening for operating said lighter.

2. The lighter specified in parent claim 1, wherein said base comprises a split ring wider at the top than at the bottom.

3. The lighter specified in claim 1, having means for removably securing said standard upon said base.

4. The lighter specified in parent claim 1, having flint feeding means comprising a resiliently projected plunger with an offset adapted to engage and feed said flint and means for releasing said plunger and flint for replacing the latter.

5. The lighter specified in parent claim 1, having resilient ball engaging means for rotatably engaging and for releasing said lighter operating means.

6. The lighter specified in parent claim 1, having resilient ball engaging means for holding and releasing said standard.

LOUIS S. SABBIA.

REFERENCES CITED

The following references are of record in the file of this patent:

Number	Name	Date
605,818	Giddings	June 14, 1898
1,022,140	Hubert	Apr. 2, 1912
5 1,049,002	Schneider	Dec. 31, 1912
1,087,125	Litle	Feb. 17, 1914
1,181,817	Wolf	May 2, 1916
1,466,403	Knapp	Aug. 28, 1923
1,704,122	Cohen	Mar. 5, 1929
10 1,793,515	Segal	Feb. 24, 1931
1,877,362	Sackett	Sept. 13, 1932
1,956,455	Pelzner	Apr. 24, 1934
1,972,072	Angell	Sept. 4, 1934
2,224,406	Mitton	Dec. 10, 1940
15 2,403,589	Dritz	July 9, 1946
2,455,348	Barstow	Dec. 7, 1948

FOREIGN PATENTS

Number	Country	Date
20 276,253	Great Britain	Aug. 25, 1927
557,649	France	May 8, 1923
589,013	Great Britain	June 9, 1947

4
UNITED STATES PATENTS