

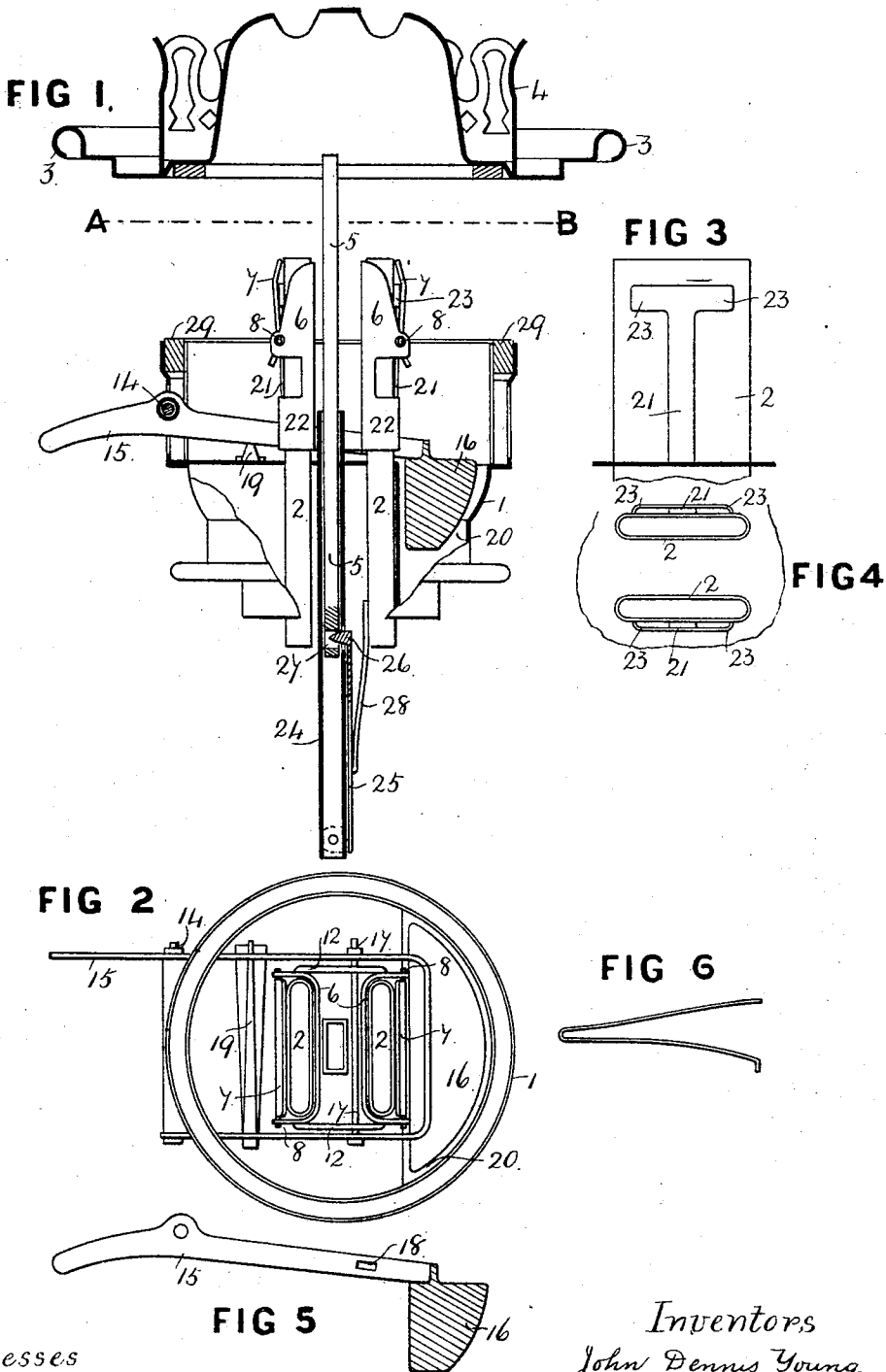
(No Model.)

3 Sheets—Sheet 1.

J. D. & H. B. YOUNG.
OIL LAMP.

No. 479,344.

Patented July 19, 1892.



Witnesses
Ernest W. Jones
Wilfred C. Bragge.

Inventors
John Dennis Young
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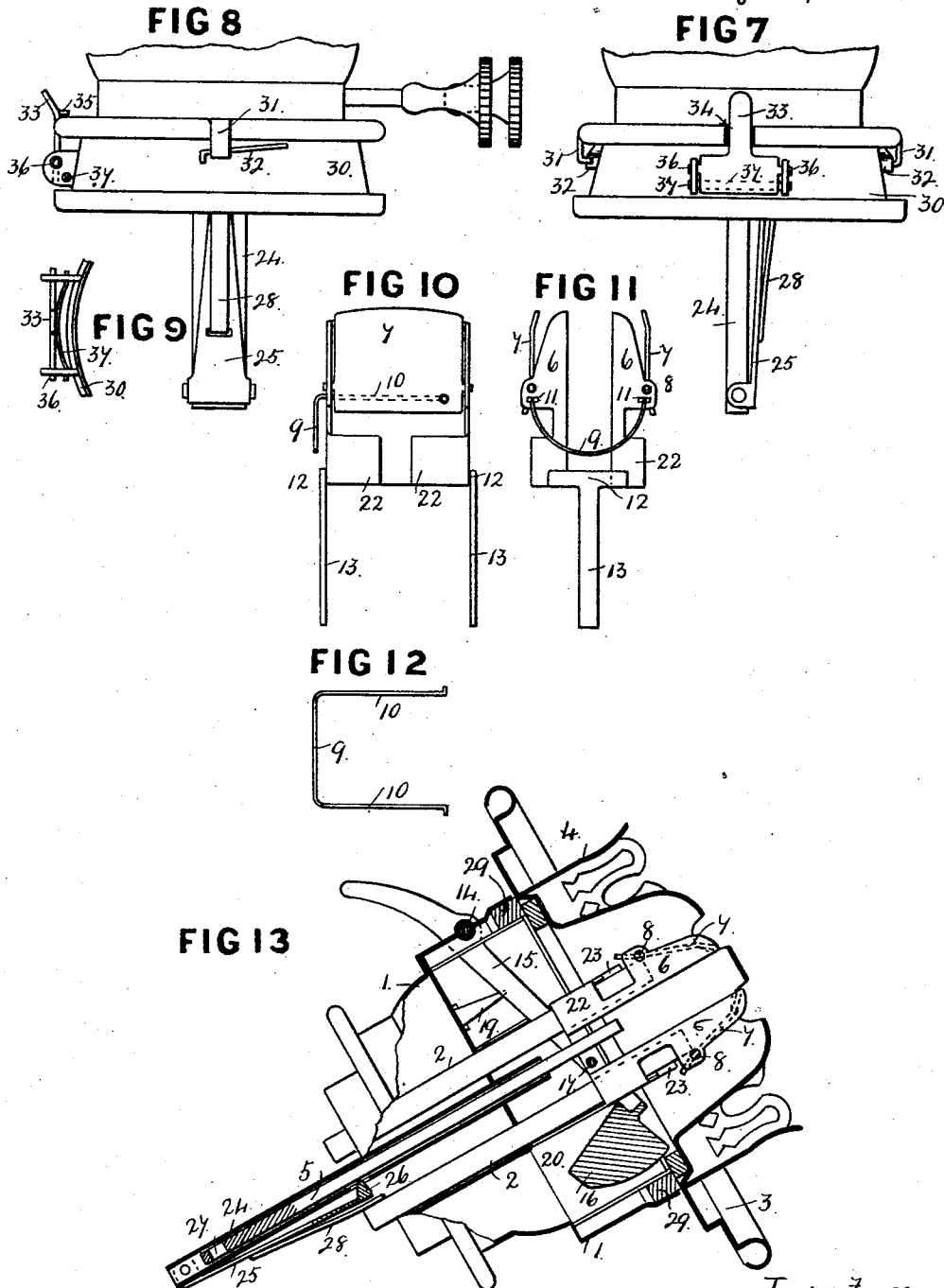
(No Model.)

J. D. & H. B. YOUNG.
OIL LAMP.

3 Sheets—Sheet 2.

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(No Model.)

3 Sheets—Sheet 3.

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FIG 14

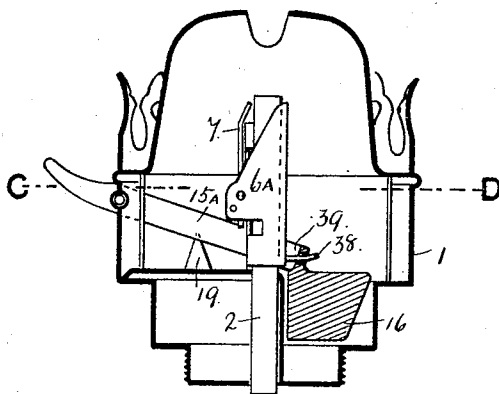


FIG 15

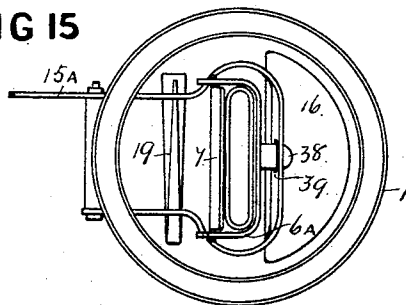


FIG 16

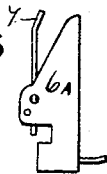


FIG 17



FIG 18

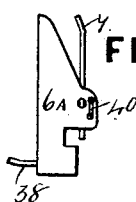


FIG 19

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UNITED STATES PATENT OFFICE.

JOHN DENNIS YOUNG, OF BARNSTAPLE, AND HENRY BURGESS YOUNG, OF LONDON, ENGLAND.

OIL-LAMP.

SPECIFICATION forming part of Letters Patent No. 479,344, dated July 19, 1892.

Application filed February 11, 1891. Serial No. 381,264. (No model.) Patented in England February 11, 1889, No. 2,391, and December 29, 1890, No. 21,131; in France February 12, 1891, No. 211,350; in Belgium February 12, 1891, No. 93,744, and in Germany February 19, 1891, No. 59,104.

To all whom it may concern:

Be it known that we, JOHN DENNIS YOUNG, of Taw Vale Parade, Barnstaple, in the county of Devon, and HENRY BURGESS YOUNG, of 24 Penton Place, Pentonville Road, London, England, subjects of the Queen of Great Britain, have invented certain new and useful Improvements in Oil-Lamps, (for part of which I, the said JOHN DENNIS YOUNG, have obtained a patent in Great Britain, No. 2,391, bearing date February 11, 1889, and where a patent has been granted for the remaining part of this our invention, bearing date December 29, 1890, and numbered 21,131; also, in Germany, No. 59,104, dated February 19, 1891; in France, No. 211,350, dated February 12, 1891, and in Belgium, No. 93,744, dated February 12, 1891,) of which the following is a specification.

Our invention relates to the construction and arrangement of duplex and single wick lamps; and its object is to provide an improved adaptation and arrangement of a combined spring and gravitating action for the automatic extinguishing of such lamps; to provide an improved method in duplex lamps of connecting the one sliding shutter-box to the other, also of connecting the shutter box or boxes to the operating-lever; to provide means for keeping the shutters full open during their forward (extinguishing) motion until they reach a certain point in their travel; to provide a buffer-cushion upon the burner-body to receive the fall of the gallery, &c.; also, to provide a sustaining device in combination with the gallery-raising mechanism; also, to provide a locking arrangement for securing the burner to the reservoir-mount. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of the lamp-burner as it appears when the gallery is raised. Fig. 2 is a plan of part of the burner on line A B, Fig. 1. Figs. 3 and 4 are front and plan views in detail of the wick-tubes and the shutter-sustaining device. Fig. 5 is a detailed view of the lever and weight.

Fig. 6 is a detailed elevation of the main spring. Fig. 7 is a part front elevation of the burner, showing the locking device in its attachment to the reservoir. Fig. 8 is a side view, and Fig. 9 a plan view, of the said locking device. Figs. 10 and 11 are detailed front and side views of the shutter-boxes. Fig. 12 is a detailed plan view of the shutter-spring. Fig. 13 is a sectional elevation of the burner as it appears when the lamp is overturned. Fig. 14 is an elevation showing part of this invention as applied to a single-wick burner. Fig. 15 is a plan view of the single-wick burner on line C D, Fig. 14, as it appears with the chimney holder and dome removed. Figs. 16, 17, and 18 are detailed views of the single-wick shutter-box; and Fig. 19 is a detailed view of the single-wick shutter-spring.

Similar figures refer to similar parts throughout the several views.

1 is the body of the burner.

2 2 are the wick-tubes.

3 is the gallery.

4 is the chimney-holder carried upon the sliding leg 5.

6 6 are the extinguishing-boxes, having the shutters 7 7 working upon the joint 8. These said shutters 7 7 are constantly pressing against the wick-tubes by reason of the spring 9, (see Figs. 10, 11, and 12,) the two sides 10 10 of which are passed through slotted holes 11 11 in the boxes and act upon the under side of the shutters on a line below the joint 8. These two boxes 6 6 are secured to each other by the pieces 12 12, to which are attached the legs 13 13. These legs 13 13 slide in holes or guides formed in the bottom of the burner, and thus afford a guide in addition to their position upon the wick-tubes 2 2, and thereby insuring a long guide and consequently a smooth sliding action.

14 is a joint upon which is carried the lever 15, to which latter is rigidly attached the weight 16. This lever 15 is connected to the extinguisher-boxes 6 6 by means of the cross-pin 17, which is rigid in the pieces 12 12, but works loosely in the slot-holes 18 in the lever 15. (See Fig. 5.)

Connected to and lying upon the bottom of the burner is provided the main spring 19, the upper part of which is always exerting its power upon the under side of the lever 15. (See Figs. 1, 2, and 13.) A recess 20 is provided in the bottom part of the burner to receive the weight 16. Thus while in the vertical or normal position the weight 16 overcomes by gravitation the power of the spring 19 and the extinguishers are held down; but upon the lamp being overturned (see Fig. 13) by reason of the change of the relative position of the joint 14 to that of the weight 16 the spring 19 overcomes the now-reduced power of the weight and the extinguishers are raised and the light put out. Non-automatically the light may be put out by pressure upon the extended handle of the lever 15.

In order to prevent the shutters 7 7 from striking the wicks in their ascent, the pieces 21 21 are secured at their lower ends to the wick-tubes, (their upper ends being free to permit of the boxes 6 6 being passed onto the tubes 2 2.) (See Figs. 1, 3, and 4.)

When putting the boxes on the wick-tubes, by springing open the upper part of the pieces 21 21 the clip parts 22 22 of the boxes pass down between it and the tube until the parts 22 22 have passed the parts 23 23, when the latter resume their normal position, the parts 23 23 forming also a stop for the upward sliding of the boxes. Thus the shutters in their sliding forward ride upon the upper part of the pieces 21 21, which prevents their closing until they have passed them, and of course thereby prevents their touching the wicks. Again, as before stated, the gallery 3, chimney-holder 4, &c., is carried upon the leg 5, which latter slides freely in the guide or tube 24, which extends some distance below the burner. Connected to the lower end of the guide or tube is the catch 25, having at its upper end a catch lump or tooth 26, which passes through a hole in the side of the guide or tube and (when the gallery is raised) also passes into the hole 27 in the lower end of the leg 5. This catch 25 is pressed upon by the spring 28. Thus upon raising the gallery to a given height, as seen in Fig. 1, the tooth 26 is pressed into the hole in the leg and supports it. By reason, however, of the said tooth 26 being more or less beveled at its point, the gallery, &c., may be lowered by an extra downward pressure thereon. Further, the said gallery, &c., may, if desired, be entirely removed by rapidly lifting it from its lowest position, in which case the hole 27 is shot past the tooth 26 before the latter has time to enter it.

In the upper part of the burner we provide a recess to receive a cushion 29, whose upper edge stands just above the rim of the burner, so that when the gallery, &c., is lowered or accidentally falls the noise and shock thereby shall be much lessened. Further, as usual, the part 30 is permanently secured to or forms part of the reservoir. To this reservoir-mount

30 the burner may be secured in the ordinary manner, as shown—that is to say, by the clip 31, upon the burner being slid round upon the inclined catches 32 upon the mount or by any equivalent device. In order, however, to prevent the unwary turning backward and unfastening the burner, we provide the lever or spring-catch 33, and in harmony therewith make a recess 34 (see Figs. 7 and 8) in the bottom ring or flange of the burner, so that when the burner is being turned onto the catches 32 when the recess 34 arrives opposite the catch 33 the latter drops therein and securely locks it, the overhanging part 35 also preventing an upward lift. This spring may be variously constructed as to detail; but, as shown in the drawings, the catch 33 is fulcrumed at 36 and a pressure-spring 37 is employed to press it into position.

In applying this our invention to single-wick-lamp burners in one or two instances we make slight modifications.

In order to connect the lever 15^a to the extinguisher-box 6^a, (see Figs. 14 to 19, inclusive,) a projection 38 is provided upon the said box, which engages with the hole 39 in the lever. Thus when the lever 15^a and weight is raised the box 6^a is also thereby raised. In this case we also provide the modified form of shutter-spring 40, which, being threaded through the holes in the box, acts always on the shutter to close it.

We are aware that prior to our invention the galleries of lamps have been carried upon a single sliding leg; also, that certain catches have been employed in conjunction with compressible bolts or other similar manipulative devices to sustain such galleries when raised. We therefore do not claim these parts; but

What we do claim as our invention, and desire to secure by Letters Patent, is—

1. An oil-lamp burner consisting of the body of the burner, wick-tubes, sliding extinguisher-boxes with their shutters and frame-lever having a fixed weight attached thereto, such weight being admitted into a recess formed in the lower part of the burner, and a lever-operating spring, all substantially as set forth, and for the purposes specified.

2. The combination, in oil-lamps, of the operating-lever having a fixed weight attached thereto and sliding extinguisher-boxes and shutters, and wick-tubes, with the burner-body having in its lower part a recess formed to receive the said lever-weight, substantially as set forth.

3. The combination, in oil-lamps, of the shutter-boxes 6 6, sliding upon wick-tubes 2 2 and having extinguishing-shutters 7 7, and side connecting-pieces 12 12, with the extending sliding legs 13 13 taking into slide-holes in the bottom of the burner, the whole being operated by the lever 5 and spring 19, all substantially as set forth.

4. The combination, in oil-lamps, of the raising-gallery having the leg 5, in which is pro-

vided the hole 27, with the body of the burner having the slideway 24, upon which is carried the vertical lever 25, having a tooth 26, whose upper side is beveled or sloped considerably, the said lever being pressed inward by spring 28, all substantially as set forth, and for the purposes specified.

5. In oil-lamps, the combination of a raising-gallery, with the body of the burner having a cushion 29, substantially as described and shown, and for the purposes specified.

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