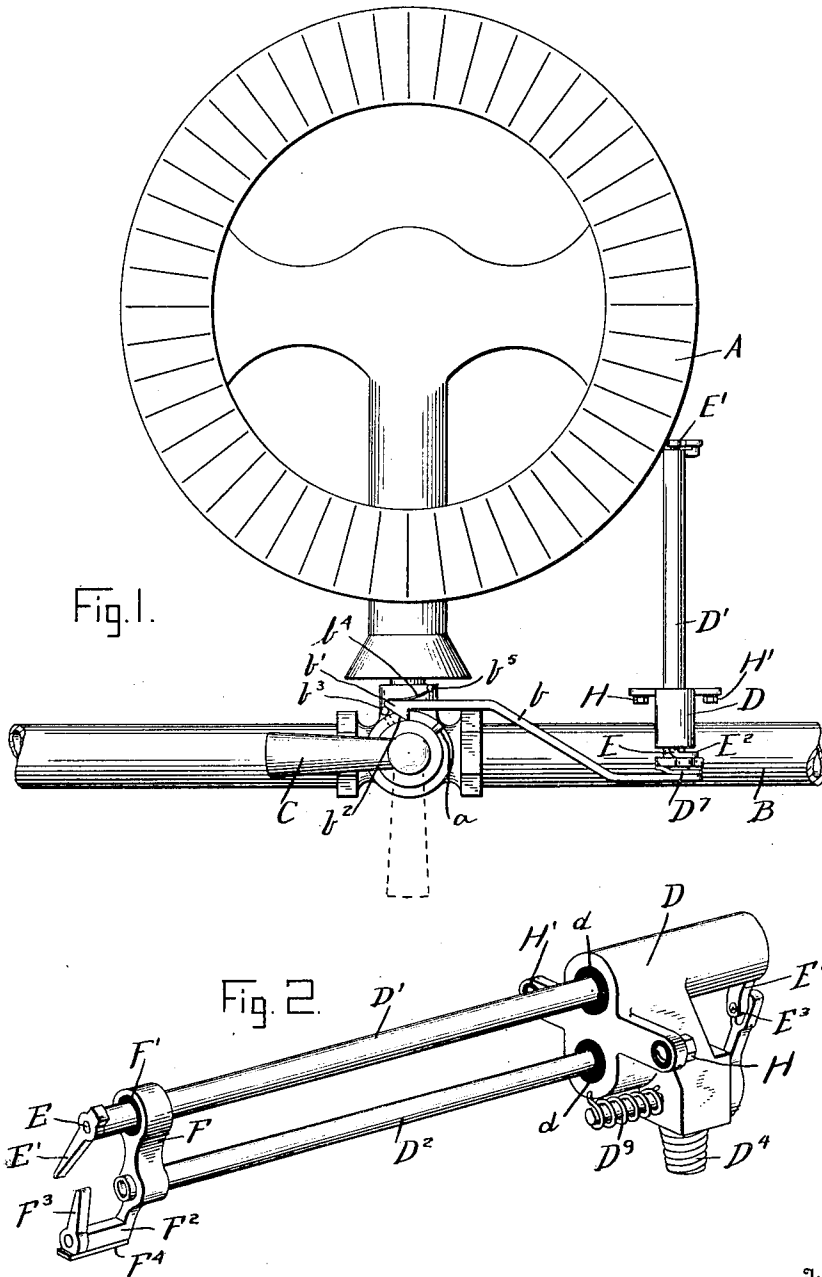


C. E. HEFT.
LIGHTING ATTACHMENT FOR GASEOUS FUEL BURNERS.
APPLICATION FILED JUNE 5, 1908.

925,808.

Patented June 22, 1909.
2 SHEETS—SHEET 1.



Witnesses

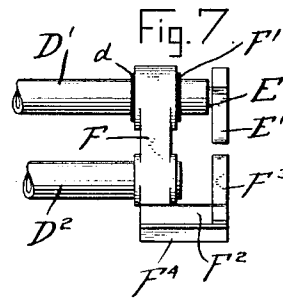
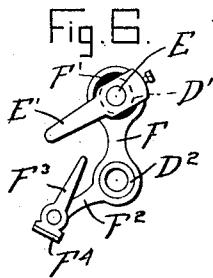
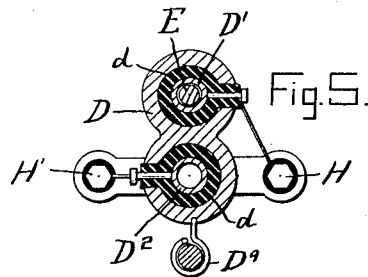
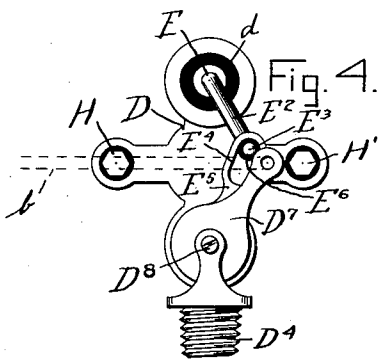
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925,808.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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LIGHTING ATTACHMENT FOR GASEOUS-FUEL BURNERS.

No. 925,808.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed June 5, 1908. Serial No. 436,859.

To all whom it may concern:

Be it known that I, CHARLES E. HEFT, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Lighting Attachments for Gaseous-Fuel Burners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in automatic lighting attachments for gas stoves and other burners, and comprehends an electrically operated device which can easily be applied to any burner or to a series of burners, and is so constructed as to render the parts liable to comparatively little wear and destruction, while at the same time, they are quick and effective in their operation, and easily, when worn out, replaced.

One of the objects of the invention is to provide a device of the character mentioned, which employs movable electrodes so that neither contact shall be subject to heat, thus making it unnecessary to use platinum contacts as is done in the structures of this sort now in use.

Other objects and advantages will be apparent from the following detailed description, when read in conjunction with the appended claims and the drawings hereto annexed, in which,

Figure 1 is a top plan view of a burner with my device in operative position. Fig. 2 is a perspective view of the lighting attachment. Fig. 3 is a longitudinal vertical section of the same. Fig. 4 is a front elevation of the operating parts. Fig. 5 is a rear elevation of the same. Figs. 6 and 7 are detailed views of the movable electrodes.

Referring more particularly to the drawings, A designates a gas burner of the usual type and B the supply pipe therefor. C is the operating lever for the supply valve, and is provided with a lug *a*, as shown in Fig. 1. Operatively connected to the lighter, is a connecting rod *b* which has an offset portion *b*¹ adapted to lie in the path of movement of the lug *a*. The offset portion *b*¹ is beveled as shown at *b*², said beveled part being arranged to engage the pin *b*³ for a purpose hereinafter to be described. A spring *b*⁴ is suitably secured to a post *b*⁵ and bears

against the connecting rod *b*, serving to hold the same normally lowered.

The lighter includes a casting D within which are secured the tubes D¹ and D², said tubes being insulated from the casting by any suitable substance *d*. Leading from tube D² is a port D³, which connects with the supply pipe B by a screw threaded coupling D⁴. Properly positioned to close the port D³ is a rotary valve D⁵ having the port D⁶ therein. Fast on the valve D⁵ is the lever D⁷ which is pivoted to the connecting rod *b*. D⁸ is a centering screw supported in an arm of the casting, to hold the valve D⁵ down in proper position, and D⁹ is a coil spring for retaining valve D⁵ normally closed, the ends of the spring being secured to the valve and a portion of the casting respectively.

Supported in the tube D¹ is a shaft E carrying the contact member E¹ at one end, and the crank E² at the other end. The crank E² is provided with a pin E³ which engages a slot E⁴ in a lever E⁵, said lever being fixed on the valve D⁵. The pin E³ is insulated from the lever E⁵ by any suitable substance E⁶.

Supported on the tube D¹ is a bracket F, properly insulated as shown at F¹. The bracket carries an arm F² to which is pivoted the contact member F³. A leaf spring F⁴ is secured to arm F² and bears against the lower edge of contact member F³, whereby it is centered in proper position, the spring effecting return of the contact member, whenever it is moved away from its normal position.

Binding posts H, H¹ are provided, which extend through the casting from the front to the rear thereof and are separated therefrom by proper insulating material. The circuit followed by the current is as follows: from a proper source to binding post H, to tube D¹, to shaft E, to contact members E¹, and F³ successively, to arm F² and bracket F, to tube D², to binding post H¹ and back to the current supply.

The operation will readily be apparent: The main valve being opened to admit gas to the burner, connecting-rod *b* is pulled over by lug *a*, and as rod *b* is pivotally secured to lever D⁷, this serves to turn the valve D⁵ and open port D⁶, thus permitting a supplemental supply of gas to pass in through tube D². The rocking of valve D⁵ turns the shaft E through lever E⁵ and crank E², and contact

member E¹ is rocked over until it engages F³. It then moves the contact member F³ along until they reach a point opposite the end of tube D², at which time the first contact member snaps off of the second contact member, thereby producing a spark and igniting the burner. Spring F⁴ immediately returns contact F³ to normal position. As soon as the beveled portion b² of rod b shall have ridden up far enough on pin b³ to permit lug a to pass thereunder, the spring D⁹ comes into action and returns the parts to normal position, closing valve D⁵.

It will be understood that I have disclosed the invention in what I deem a preferred embodiment, but I do not wish to be confined to the exact structure herein shown, as various changes and modifications may be employed without departing from the spirit and intent of my invention.

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

1. A lighting attachment for gaseous fuel burners including a gas tube, a valve controlling the same, a lever secured to said valve, a connecting-rod pivoted to said lever and operatively associated with the main burner valve, a shaft carrying a contact, operating means between said first-mentioned valve and said shaft, and means for returning said first-mentioned valve to normal position at the limit of opening movement of the main valve.

2. A lighting attachment for gaseous fuel burners including a gas tube, a valve controlling the same, connections between said valve and the main burner valve, a shaft carrying a contact and operatively associated with said first-mentioned valve, a second contact positioned in the path of movement of said first-mentioned contact, and a spring for holding said latter contact in normal position.

3. A lighting attachment for gaseous fuel burners including a gas tube, a valve controlling the same, a lever secured to said valve, a connecting rod pivoted to said lever, an offset portion on said connecting rod and beveled on one side, a lug carried by the main burner valve and adapted to engage said offset portion, a pin positioned for engagement with said beveled portion, a second lever secured to the first mentioned valve and connected to a crank shaft, a contact carried by said shaft, a second contact pivotally supported in the path of movement of said first mentioned contact, and means for returning both of said contacts to normal position.

In testimony whereof, I affix my signature, in the presence of two subscribing witnesses.

CHARLES E. HEFT.

Witnesses:

GUSSIE ROSENSTEIN,
D. S. DUFUR.