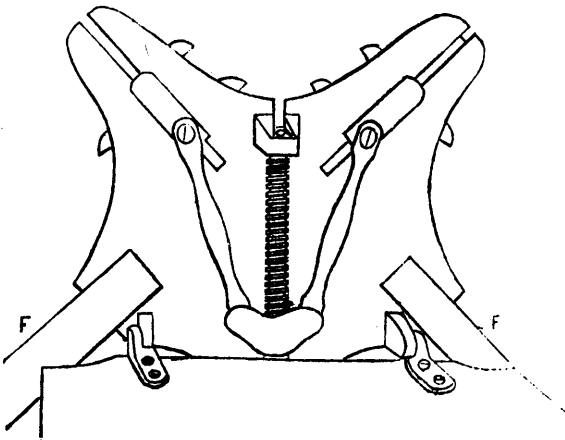
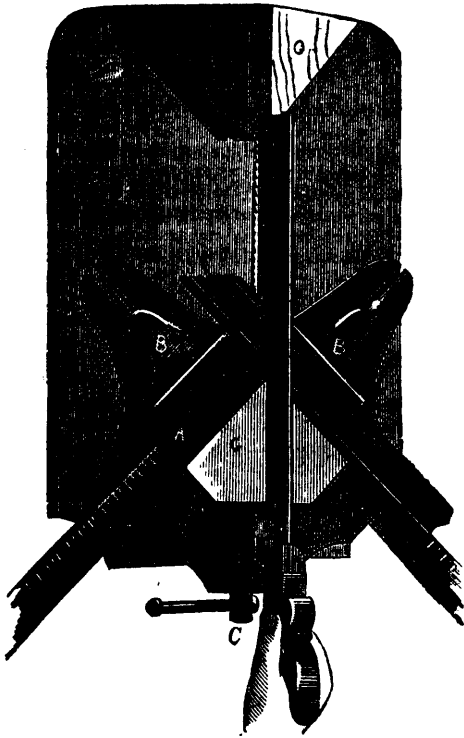


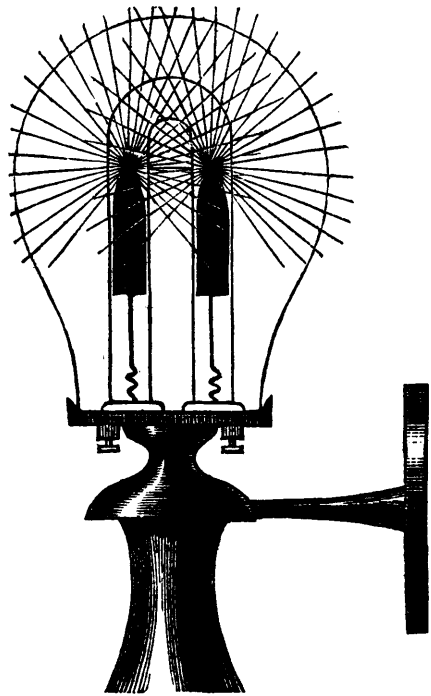
moulding which would, in the ordinary manner of working, be of little utility. The saw guide blocks G are of wood. One is screwed within the square and the other to the bench. The latter may be made to slide back and forth so as to be brought against the moulding. As the block wears away, they can be brought together, the screws underneath working through slots for the purpose. The machine may be hinged to the bench as shown, or may be imbedded in the latter flush with the surface. A circular saw may be employed instead of the hand instrument; if desired.



FAHRIG'S ELECTRIC LIGHT.

The annexed engraving shows a sketch of a new burner for the electric light. It consists of a glass tube one half inch inside and about ten inches long, which is bent to the shape shown, both arms as close as possible together. A small hole is drilled in the top of the bent tube to insert two pieces of wire, No. 30 platinum. Length of platinum wire one inch and three-quarters inside each arm of the tube. Two carbon pencils, well fitted to the tube and one inch and a-half long, connected on the flat end to a copper wire of No. 12 thickness, are now inserted into the tubes, the points

toward the platinum wires, leaving one quarter inch space between the carbon points and the ends of wires. The tube is now warmed, and the air expelled, and quickly sealed and cemented with any fire-resisting cement. The two platinum wires are one pole, the two carbon wires the other pole, to be attached to the battery or magneto-machine power. The light so obtained is very brilliant, steady, and clear, having many advantages over the two-point carbon burner, and dispenses with the costly regulator. How far the success of the new burner can be estimated is not known, and must be proved by longer experiments, but as at present it is worthy of adoption and improving in this direction. A bell-shaped globe is better than a round one.—*F. E. Fahrigr, in English Mechanic.*



FAHRIG'S BURNER FOR ELECTRIC LAMP.

THE ELECTRIC LIGHT IN FACTORIES.—Mr. J. Lloyd Haigh, the contractor for furnishing wire for the East River Bridge, has made a contract for lighting his works in South Brooklyn with electricity. He calculates that he will ultimately save a large percentage of his gas bills by the change. One electric light is to be placed in the middle of the street to afford better light to workmen passing to and from the different buildings of the factory. Mr. Haigh was the first to use a telephone between New York and Brooklyn.

The electric light has been introduced into some of the London theatres. Several foci of light are produced through one machine, and these can be made to burn independently of one another. The expense of the motive power and the carbons used in the lamps will, it is believed, enable a light to be produced at about half the cost of gas. The strong light is said to be admirably adapted to bringing out stage effects, and the experiments have been satisfactory.

NON-TRANSPARENCY OF FLAME.—It has been commonly believed that flame is transparent. Some observations have lately been made by M. Van Eyndhoven on the flame of a bat's-wing burner with one of Sugg's photometers, and he found in two experiments a difference of 1.5 candles, or 17 to 18 per cent, between the narrow and the broad side of the flame—the latter giving most light; whence he infers that the flame is not transparent. For this reason the entire luminous power is not obtained from an Argand burner. For good street lighting, the slit of the burner and the direction of the street should be at right angles to each other.—*Eng. Mech.*