face at practically right angles. The rays from this lamp are actinic, so that a very effective transformation of electricity into chemical action is obtained.

The machine is self-contained and only needs connecting to the nearest electric light circuit, when the motor and lighting apparatus are ready for operation. It is very compact, requiring a space of only 2 ft. x 5 ft., and the speed of feeding and printing may be varied to suit the operator.



Fig. 2.-Everett-McAdam Electric Blue-Printing Machine.

A point that may be mentioned is that when printing large tracings from which a number of prints are required, the leading edge may be again fed into the machine as the trailing edge disappears, and the wasting of the paper is entirely eliminated.

Although the machine has been on the market only a year, forty of them are already in use daily, and the demand for them is steadily increasing.

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IMPROVED POP SAFETY VALVE.

A recently re-designed Pop Safety Valve, which now fulfills, in all respects, the most rigid requirements is that manufactured by the Lunkenhimer Company, of Cincinnati, Ohio. These valves are made of the very highest grade of



bronze composition, insuring great durability; are very simple in construction, and are warranted to be reliable, accurate and positive in operation. They have full relieving capacity, are very sensitive to excessive pressure, and admit of being finely adjusted. The valves are provided with lock-key attachment, to guard against their being tampered with, and adjustments of pop lid and pressure can be made from the outside of the valve without taking it apart.

The springs rest between ball socket plates, which equally divides the pressure on the disc; are also encased, hence the valve cannot be affected by back pressure. They have bevel seats, at an angle of forty-five (45) degrees to the vertical axis of the valve; are provided with suitable levers, by means of which the discs can be raised from their seats, and they are allowed at the highest rating, i. e. one square inch of valve area to every three (3) square feet of grate surface of boilers.

To take the valve apart, the lever U is removed, then the bonnet C, after which the load on the spring is relieved by unscrewing the regulating screw L. The regulating ring screw I is then removed, and the bell A unscrewed. To set the valve for a higher pressure, it is only necessary to turn the regulating screw L down, and for a lower pressure, to turn it up.

The pop or action of the escaping steam is regulated by the ring H, in the base of the valve, which is easily accessible without taking the valve apart, and it is held securely in place when set by the regulating ring screw I on the side of the bell. If the valve pops suddenly, and does not relieve the pressure enough, the ring H is turned up, which covers the drill holes and causes the disc to remain longer off its seat. If the valve pops too much, opening and closing gradually, then the ring H is turned down.

When the desired adjustment is obtained, the ring is secured by means of the screw I.

There are a great many of these valves in use, and the demand for them is steadily increasing, as they are giving perfect satisfaction wherever installed.

ENTERTAINMENT BY TELEPHONE.

A demonstration of the possibilities of the telephone in transmitting, over one instrument, speeches, or vocal and instrumental music to be heard by a large audience,



Fig. 1.—Horn and Telephone Receiver Suspended From Trees.

was recently made at Riverview Park, Chicago. With the exception of Coney Island, this park is the largest of its kind in the United States. Its attractions and entertainments are of the highest order, so that the demonstration was given one of the most critical tests that could be made.