

may be vaporized by the current. The vapor forms a fine condensate, or is projected with the spray against the surface to be coated.

5 What I claim as my invention and desire to secure by Letters Patent of the United States is:—

1. In apparatus for the purpose set forth the combination of means for feeding toward each other two fusible electrodes, means for feeding to said electrodes an electric current capable of melting the same, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

2. In apparatus for the purpose set forth, the combination of means for feeding toward each other two fusible electrodes, means for feeding to said electrodes an electric current capable of melting the same, means for vibrating one of said electrodes, whereby contact between said electrodes is alternately made and broken, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

3. In apparatus for the purpose set forth, the combination of means for feeding toward each other two fusible electrodes, means for feeding to said electrodes an electric current capable of melting the same, electromagnetic means for vibrating one of said electrodes, whereby contact between said electrodes is alternately made and broken, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

4. In apparatus for the purpose set forth, the combination of means for feeding toward each other two fusible electrodes, means for feeding to said electrodes an electric current capable of melting the same, electromagnetic means for vibrating one of said electrodes, whereby contact between said electrodes is alternately made and broken, said electromagnetic means being electrically connected in series with said electrodes, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

5. In apparatus for the purpose set forth, the combination of means for feeding toward each other two fusible electrodes comprising an elastically supported iron guide tube for one of said electrodes and an elec-

tromagnet to attract same, means for feeding to said electrodes an electric current capable of melting same, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

6. In apparatus for the purpose set forth, the combination of means for feeding toward each other two fusible electrodes comprising an elastically supported iron guide tube for one of said electrodes and an electromagnet to attract same, means for feeding to said electrodes an electric current capable of melting same, means for operating said electromagnet whereby contact between said electrodes is alternately made and broken, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

7. In apparatus for the purpose set forth, the combination of means for feeding toward each other two fusible electrodes comprising an elastically supported iron guide tube for one of said electrodes and an electromagnet to attract same, means for feeding to said electrodes an electric current capable of melting same, means to electrically connect said electromagnet in series with said electrodes whereby contact between said electrodes is alternately made and broken, and means for directing a stream of gas toward said electrodes, whereby molten matter is projected from said electrodes in the form of spray.

8. In apparatus for the purpose set forth, the combination of means for feeding toward each other two wires comprising an iron guide tube for one of said wires, whereby said wires are brought into contact with each other, means elastically supporting said guide tube, an electromagnet positioned to attract said guide tube, whereby the wire in the tube is removed from contact with the other wire to form an arc gap, means for feeding electric current to said wires and the coil of said electromagnet in series, and means for directing a stream of gas toward said arc gap, whereby material melted off said wires by said electric current is projected in the form of spray.

In witness whereof I have signed this specification in the presence of two witnesses.

MAX ULRICH SCHOOP.

Witnesses:

PAUL ZOLLER,
CARL GUBLER.