



Fig. 1.2. Ronalds' Electrograph, possibly the first Electrostatic Recording Apparatus ever built. (Taken from *Encyclopaedia Britannica*, Vol. 8, 1842. Permission granted to reproduce.)

1.3.5 BREATH FIGURES. In 1838 *Riess*⁸ noticed that glass or mica plates placed between spark discharge points and sparked show branched patterns when breathed upon. The patterns stand out mirror-bright upon the surface fogged by the breath. Four years later, in 1842, *Karsten* discovered a method of producing breath images of coins or metal engravings. A coin was placed on a glass plate which rested on a grounded metal disc. Electric sparks from a static machine were applied to the coin for about 100 revolutions of the machine. When the coin was removed and the glass was breathed upon, the glass surface showed a complete image of the design, with the areas which had been in close contact with the raised areas of the metal showing dark or transparent while the