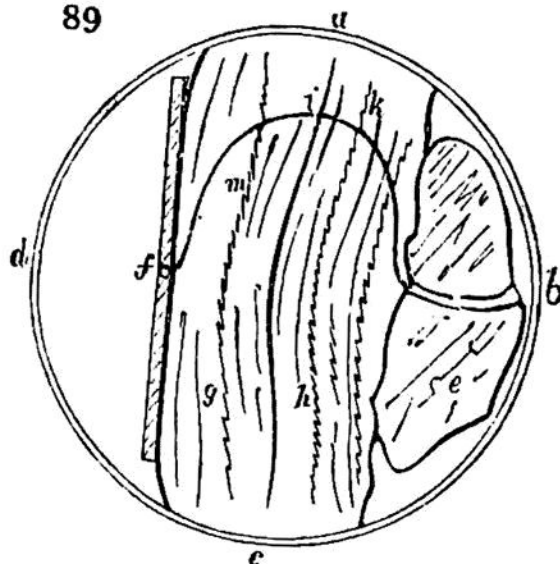


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“ The above figure may serve to illustrate the process by which this was accomplished. Let *a b c d* represent the top or rim of an earthenware cup or basin; *e*, a piece of copper pyrites; *f*, the upper edge of a plate of zinc; *i*, copper wire by which the two latter were connected; and *g, h*, the top of a mass or wall of clay between the copper ore and the zinc, and forming for each of them a watertight cell. The cell containing the copper ore was filled with a metallic solution—the sulphate of zinc, for instance—and the other with water mixed with a little sulphuric acid. The water with which the clay was worked up was also acidulated. Thus circumstanced, the apparatus was set aside three or four months, and was not disturbed till some little time after the water had evaporated, and the clay had become perfectly dry throughout.

“ It then exhibited, on breaking off a portion of its upper part, lines of cleavage of a schistose character, parallel to the sides of the clay and plate of zinc, or at least as nearly so as was consistent with their undulatory form. In other words, the lines or laminæ were at right angles to the direction of the electrical forces.

“ They are indicated by the lines on *g, h*; and the strongly marked line *a c* represents a principal line of division which separated the clay into two portions from the top to the bottom.

“ These seemed to form, as it were, two voltaic