

UNITED STATES PATENT OFFICE.

JULIUS KIRCHER, OF NEW YORK, N. Y.

IMPROVEMENT IN INKS FOR PRINTING.

Specification forming part of Letters Patent No. 119,154, dated September 19, 1871.

To all whom it may concern:

Be it known that I, JULIUS KIRCHER, of the city, county, and State of New York, have invented certain Improvements in Printing-Ink, of which the following is a specification:

The object of my invention is to produce a fine, smooth, and adhesive ink for printing, that will be free from grit or like defects, and comprise a new combination of matter, in which common iron will form the basis.

The ingredients employed and manufacture of the ink are as follows: I take common iron and dissolve the same in hydrochloric acid, acetic acid or wood vinegar; and the iron existing in this solution as a protoxide, after being converted into a sesquioxide, I mix with gallic acid and tannic acid, or a mixture of gallic acid and tannic acid,

in such quantities as will impart to the mixture a dark-blue color. The iron I now precipitate by means of an alkali or alkaline earth; and I next dry and grind the same with varnish until it has become very fine, when my printing-ink is ready for use.

What I claim is—

A printing-ink composed of the ingredients in any desired proportions, and having for its basis common iron, as a new combination of matter, substantially as described and set forth.

In testimony whereof I have hereunto set my signature this 16th day of August, 1871.

JULIUS KIRCHER.

Witnesses:

L. W. EACLELSON.

ARTHUR NEILL.

(89.)