

# UNITED STATES PATENT OFFICE.

HENRY MATHIESON, OF MILE END, COUNTY OF MIDDLESEX, ENGLAND.

PROCESS OF AND COMPOSITION FOR MAKING A DRIER FOR INK USED FOR PRINTING ON METALS.

SPECIFICATION forming part of Letters Patent No. 277,499, dated May 15, 1883.

Application filed June 13, 1882. (Specimens.) Patented in Germany March 8, 1881, No. 16,440; in Belgium March 7, 1882, No. 57,275; in France March 8, 1882, No. 147,797; in England March 18, 1882, No. 1,322; in Austria April 24, 1882, and in Canada April 25, 1882, No. 30,929.

*To all whom it may concern:*

Be it known that I, HENRY MATHIESON, a citizen of London, residing at Mile End, in the county of Middlesex and Kingdom of Great Britain, have invented certain new and useful Improvements in Process of and Composition for Making a Drier for Ink Used for Printing on Metals; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to drying by cold process printing on tin, zinc, brass, or other metals. Hitherto lead has been the drier of ink used for printing on metal.

In carrying my invention into practice I provide two ounces of borate of manganese and two drams of sulphide of manganese, which I boil for two hours in one gallon of linseed-oil. I skim the oil, when necessary, during the boiling process. The oil having been allowed to cool, I mix the dregs thereof with a convenient quantity of Frankfort black, ground, pounded, or mixed, and I thus obtain a thick paste. To render this paste easy for printing when applied to the printing-roller, I mix with said paste a convenient quantity of said boiled oil. For printing light colors it is necessary that the aforesaid paste should be "tacky" or more elastic than for printing dark colors. To effect that result I boil for two hours longer the oil hereinbefore mentioned, and I mix it with the paste above mentioned. When the quantity of dregs is insufficient I add thereto a sufficient quantity of the oil boiled for four hours, and which is usually known as "strong oil." By this means I obtain the requisite quantity of paste. I coat the sheet of metal with the

paste hereinbefore mentioned, and I dry the printing on said sheet (which printing is executed in the ordinary manner) by exposure to the atmosphere instead of by hot air or heating process, as has been employed hitherto.

By my invention I obtain the following advantages, namely: The sheets of metal when so printed on will stand ordinary wear without being varnished, and, not being varnished, will more easily receive solder when they are being manufactured into shape.

Having now fully described the nature of my said invention and the manner in which the same is to be carried into practice, I wish it to be understood that what I claim is—

1. The process of making a drier for ink used for printing on metals, consisting in the following steps: first, mixing two ounces of borate of manganese and two drams of sulphide of manganese with a gallon of linseed-oil; second, boiling the mixture and skimming the same while boiling; third, allowing the mixture to cool and removing the dregs; fourth, mixing the dregs thereof with a convenient quantity of Frankfort black and linseed-oil, substantially as set forth.

2. A composition of matter for drying paints applied to metals, consisting of a mixture of Frankfort black and linseed-oil with the dregs of a boiled mixture of oil, borate of manganese, and sulphide of manganese, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY MATHIESON.

Witnesses:

P. O'HALLORAN,  
WILLIAM DOWNIE.