

UNITED STATES PATENT OFFICE.

THOMAS W. JUST, ROBERT WEILER, AND OTTO HEIDEPRIEM, OF MELBOURNE,
VICTORIA.

INK.

SPECIFICATION forming part of Letters Patent No. 465,860, dated December 29, 1891.

Application filed November 10, 1890. Serial No. 370,958. (No specimens.)

To all whom it may concern:

Be it known that we, THOMAS WEMYSS JUST, hydraulic engineer, of No. 454 Collins Street, Melbourne, in the Colony of Victoria, a citizen of Melbourne and a British subject, and ROBERT WEILER and OTTO HEIDEPRIEM, merchants, both of Salisbury Buildings, corner of Bourke and Queen Streets, Melbourne aforesaid, citizens of Melbourne and British subjects, have invented a new and useful Composition of Matter to be Used for an Improved Ink, of which the following is a specification.

This invention relates to an ink specially prepared so as by its use to render forgeries and criminal erasures, additions, or alterations easy of detection and difficult to accomplish, as the ink is not affected by the agency of acids, alkalies, &c., and also to render written documents imperishable to the decay of time or other circumstances—such as damp, mildew, &c.—which would militate against their permanency and utility.

The ingredients of which our improved ink is composed are as follows: Preferably we convert sugar by the aid of concentrated sulphuric or other acids into carbon-black, or we use lamp-black, vegetable-black, soot, or other simple carbons in certain approved proportions. To these we add a solution of gum-arabic or other mucilage, caustic soda, oxalic acid, and india-ink. To the above ingredients we add vanadium, in the form of ammonium meta-vanadate or other suitable form of vanadium, Aleppo galls, and nut-galls, the whole being finished by the addition of a small quantity of aniline dye for giving a tint to the mix-

ture. Enough water is added during manufacture to make a freely-flowing ink, which is then ready for use.

We do not confine ourselves to any exact proportions of the component parts above mentioned, as they can be arranged in variable quantities; but we would have it distinctly understood that the basis of our invention consists in the use of carbon-black, to which the other ingredients serve as correctors and suspenders. However, we may use the following proportions with good results, viz: nut-galls, twenty per cent.; blue Aleppo galls, five per cent.; carbon-black, ten per cent.; vanadium, one per cent.; India carbon ink, ten per cent.; oxalic acid, three per cent.; aniline for coloring, one per cent.; rain-water, fifty per cent.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is—

The herein-described composition of matter, consisting of carbon-black, caustic soda, oxalic acid, india-ink, vanadium, Aleppo galls, nut-galls, and gum-arabic, together with a sufficiency of aniline dye for coloring, the whole being associated by a sufficiency of water to make a freely-flowing ink.

In witness whereof we have hereunto set our hands in presence of two witnesses.

T. W. JUST.

ROBERT WEILER.

OTTO HEIDEPRIEM.

Witnesses:

A. O. TACHSE, C. E.,

RICHARD SPARROW.