

UNITED STATES PATENT OFFICE.

ALFRED JOHN PARKER, OF NEW CROSS, COUNTY OF SURREY, ENGLAND.

COMPOUND FOR PRINTING-SURFACES.

SPECIFICATION forming part of Letters Patent No. 414,571, dated November 5, 1889.

Application filed December 29, 1888. Serial No. 294,965. (No specimens.) Patented in England May 17, 1888, No. 7,358, and in France September 24, 1888, No. 193,160.

To all whom it may concern:

Be it known that I, ALFRED JOHN PARKER, a subject of the Queen of Great Britain, residing at 20 Walpole Street, New Cross, in the county of Surrey, England, have invented new and useful Improvements in Compounds for Printing-Surfaces, (patented in Great Britain, No. 7,358, bearing date May 17, 1888, and in France, No. 193,160, bearing date September 24, 1888,) of which the following is a specification.

The object of this invention is to prepare and incorporate ingredients, partly under heat, for the manufacture of compounds suitable as printing-surfaces.

The ingredients I use are best glue, sugar, resin, plaster-of-paris, and glycerine, in proportions determined by the required consistency of the compound, and as an example for the purpose of my invention I first soak and melt four pounds best glue in four pounds water and leave it to simmer until all the water has evaporated. To this glue I add two pounds crystallized sugar, which dissolves by agitation, and I pour this combination into a pan containing four pounds melted resin, the heat of which is somewhat low. I bake the plaster-of-paris and then grind it to a powder, sifting the flour therefrom, and with four pounds of this plaster-of-paris flour I mix two pounds of glycerine by a grinding operation, and make a paste. This paste I stir gradually into the combination of ingredients before mentioned until thoroughly amalgamated, and it constitutes the compound suitable for printing purposes.

The compound, when required for use, is heated and spread upon zinc plates, the surfaces of which have been previously sized over. The thickness of the compound on the plate is determined by rollers, which not only squeeze the compound to make it level, but they obviate the formation of air-bubbles, thereby leaving the surface perfectly smooth. The compound may spread itself by flowing from an opening of a box which may move over the zinc plate, or the zinc plate may be

moved under the box and be then passed under rollers for leveling purposes. The zinc plate thus prepared is removed for the compound to harden off.

The compound can be kept in store before it is spread onto the zinc plate, when a reheating only is necessary; or the zinc plates with the compound on may be kept, without destroying the utility of the compound, for after use.

When the compound-covered zinc plate is required for printing, I by means of cutter-dies (which correspond to the letters or numerals to be represented in print and made up into a chase or form) cut by pressure through the compound, the depth of the cutting corresponding with its thickness, so that the surface of the zinc plate is not destroyed. The letters, numerals, or devices so cut are removed, the remaining surface being used for surface-printing; or the surrounding compound may be removed and the letters, numerals, or devices remain on the zinc plate to be used as printing-surfaces.

The pliability of the zinc plate with the compound thereon will permit of its being fixed to a cylinder printing-machine like an ordinary segmental stereo or electro plate.

A templet or stencil of the letters, numerals, or devices may be placed upon the compound, and then by dusting a light powder on it the interstices in the templet or stencil would be clearly indicated upon the compound, so that the letters, numerals, or device can be cut through and removed by hand, or the surface-body of the compound removed.

The compound prepared as hereinbefore described is specially applicable for "posters," "show-bills," "show-cards," and the like, and, in addition to the numerals, letters, or devices, a plain or fancy border may be simultaneously or otherwise formed by stamping or by cutting out the desired parts in any suitable manner.

The compound may have an impression of any device transferred or printed on it and then the desired parts can be cut out.

The proportions of the ingredients may be varied to suit the desired consistency of the compound.

What I claim, and desire to secure by Letters Patent, is—

The herein-described compound or composition of matter to be used as printing-surfaces, and consisting of best glue, sugar, resin, plaster-of-paris, and glycerine, in or about the proportions specified.

In witness whereof I have hereto signed my name, in the presence of two subscribing witnesses, this 6th day of December, 1888.

ALFRED JOHN PARKER.

Witnesses.

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