COLOURED MALTESE CROSS POSTMARKS.

Sir.—Since I have only recently taken a serious interest in stamp collecting the following questions and comments may be rather elementary to experts, if so, I tender my apologies for wasting your time.

I have two entires, both posted in Bristol, one on the 29th December 1840 and the other on the 15th February 1841. Both have penny blacks (plates 7 and 5) and are cancelled with a bright orange Maltese cross, the same ink as the Bristol date-stamp. Did the Bristol Post Office use the orange m.c. throughout this period? Were other colours used for the m.c. at Bristol?

The entire posted on February 15th 1841 also has a "No. 28" stamped in black on the front. I am told that this was one of the pre-stamp areas around Bristol, (Can anyone tell me which area it was?)

I am interested in the coloured maltese crosses and have analysed some of the pigments used, by spectrographical methods, which can be done without damage to the stamps. This gives some interesting results. The reds generally have iron oxide as the pigment, and this accounts for the numerous "rust" coloured crosses also some of the different reds, and some brown crosses, since the colour of this pigment varies with the method of preparation and is not permanent unless kept under ideal conditions. It turns a "rust" or "orange" colour in dampish conditions and the "brown" colour is due to the iron combining with atmospheric sulphur forming iron sulphide. Not all brown crosses are due to this however. The Vermilion cross has mercury sulphide as its pigment and appears to be the most permanent of the pigments used. Bright Orange has cadmium sulphide as its pigment and is fairly permanent. My two entires posted at Bristol are stamped with this pigment in their M.C. 'Red-orange' crosses have red lead or chromate of lead as their pigment, these pigments
were commonly used for the date-stamp and are not permanent unless kept under ideal conditions, since they combine with atmospheric sulphur and turn dark brown; another cause of 'brown' m. crosses, and under damp conditions these oxidise and turn white (lead sulphate) and are no doubt the cause of the 'white' Maltese cross.

Some so-called orange crosses have iron oxide as their base, and are deteriorated red m.c. and should more correctly be termed as 'rust' coloured since the pigment has in fact changed to rust.

The so-called Callander m.c. is a red-lead pigment and it appears that the ink was mixed with sulphuric acid causing it to turn a dark brown. Two true "yellow" (primrose) I examined barium chromate as the pigment, this is liable to change to a dark brown in a damp atmosphere due to combining with sulphur. The yellows used in most date-stamps have iron oxide as their pigment, this is not permanent unless kept under ideal conditions.

The magentas I have so far examined appear to be due to a mixture of violet dye with a red pigment due to mixing the ink pads? The violet dye used also turns brown with age if subject to dampish conditions, some browns are due to this. Other browns no doubt were due to "dirty" ink pads. So far I have not found a true brown pigment. A "steel blue" m.c. I examined was due to graphite being used as the black pigment. I haven't yet analysed any blue or green crosses or postmarks.

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