UNITED STATES PATENT OFFICE.

GILBERT RUTHVEN, OF LARKHALL, SCOTLAND.

ART OF LITHOGRAPHIC PRINTING.

1,364,523.

Specification of Letters Patent.

Patented Jan. 4, 1921.

No Drawing.

Application filed September 6, 1919. Serial No. 322,134.

To all whom it may concern:

Be it known that I, GILBERT RUTHVEN, a subject of the King of the United Kingdom of Great Britain and Ireland, and residing at Maitland Bank, Burnhead, Larkhall, Lanarkshire, Scotland, have invented a certain new and useful Improvement in the Art of Lithographic Printing, of which the following is a specification.

This invention relates to an improvement in the art of lithographic printing and has for its object to render conveniently practicable the use of the same original whether the printing opertion is to be performed by 15 the direct method or by the off-set method.

In lieu of or besides operating with the usual transfer paper I employ sheets of gutta-percha tissue, which can be used on both sides, and can be cleaned and so used 20 again and again. The tissue may be of pure gutta-percha in sheets of about the thickness of brown paper, say, or of thin silk or other fabric coated on one or both sides with gutta-percha. For large work requiring 25 exact register the gutta-percha tissue may be mounted on gummed paper.

I shall now explain the procedure where the original is a negative, it being understood that by an original I mean an artist's 30 drawing or a negative prepared from an artist's drawing.

I take from the original by flat impression a positive on a sheet of gutta-percha tissue and from this I produce also by flat impression a negative on the stone or plate from which I can print by the direct

Alternatively, I may take from the original negative by flat impression a positive on a sheet of gutta-percha tissue, and from this positive I may take by flat impression

a negative on a second sheet of gutta-percha tissue, from which latter I produce by flat impression a positive on the plate or stone so that I may print by the offset method.

Where the original is a positive, the procedure will be correspondingly altered.

Where desired, I may obtain transfers on transfer paper from the sheets of guttapercha tissue.

Complete proofs in various colors are obtainable from the sheet of gutta-percha

I desire it to be understood that the medium I employ is necessarily incapable of 55 any appreciable elastic distortion, as this quality is fatal to accurate register in multiple color work.

What I claim is:—

1. The improvement in lithographic print- 60 ing which consists in obtaining from an original a flat impression on substantially inelastic unsized gutta-percha tissue and producing transfers directly from said guttapercha tissue by flat impression.

2. The improvement in lithographic printing which consists in obtaining from an original a flat impression on a sheet of fabric coated with unsized gutta-percha and producing transfers directly from said sheet 70 by flat impression.

3. For lithographic printing a transfer sheet composed of fabric coated with un-

sized gutta-percha.

In testimony whereof I have signed my 75 name to this specification in the presence of two subscribing witnesses.

GILBERT RUTHVEN.

Witnesses:

ANNE L. WATT, FLORENCE HOUSTON.