



## THE CHROMIUM PROCESS

PENROSE'S ANNUAL.

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WILLIAM GAMBLE, London 1927.

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The newest item in this volume is a description by Mr. FISHENDEN of the Pantone process, which Mr. RONALD TRIST has now so far perfected that he no longer objects to publication of its details. —“Planished plates of suitable metal are first coated with an electro deposit of copper to a thickness of, say, five one-thousandths of an inch, and then with a chromium deposit of two ten-thousandths of an inch”. The plate is coated with a solution of fish-glue and bichromate, exposed, washed, and burned-in as usual in photo-engraving. It is then treated with hydrochloric acid, which dissolves the chromium where it is exposed, but as it does not attack the underlying copper it cannot etch too deeply. The plate is next dipped into a solution of silver salt, and then a few drops of mercury are rubbed over it. Amalgamation takes place immediately except in those parts where the chromium surface remains, and the mercury surface repels the ink without the use of water. The plate is now ready for trimming and mounting. The advantages of the process are many. It saves much time, as underlaying, reproofing, and fine etching are unnecessary. Fresh plates can be prepared as rapidly and cheaply as electros. Chromium is “five times harder than steel”, and a plate that has been printed from every day for months shows by microscopical examination that each chromium-topped dot retains its original perfection. An impression from a Pantone block made with a 175 to the inch screen printed simultaneously with type on a rough surfaced paper shows how perfect the dot formation is.

The editor gives his usual summary of the year's progress, in which he points out the great advances being made in rotogravure colour printing now that the process is thoroughly practical, and at the end of the volume adds his “Note Book”, dealing chiefly and critically with apparatus. “The Work of the Private Presses, VI., Essex House Press, 1898-1909,” is treated by Mr. CHAS. T. JACOBI, with examples. A new system of music printing, “*The Isotonic Notation*,” which is claimed to be simpler to learn as well as simpler to print than the usual notation, is described by Dom JOHN STÉPHAN. There are other articles of technical interest and importance, besides the usual batch of illustrations to demonstrate the present degree of perfection which the modern reproductive processes have attained.

