

PHOTOGRAVURE By Alvin Langdon Coburn
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If you are curious to know why I have written this article on "Photo' gravure" for "Platinum Print", I can give you three reasons: firstly because a photogravure may be so much like a platinum print that it is difficult to tell them apart, secondly because these processes are the two most satisfactory ways of rendering a photographic negative, and thirdly and lastly because the editors have asked me to do so, and they are too good comrades to refuse them. Briefly, a polished copper plate is covered with a fine dust of powdered bitumen, which is then heated until the tiny particles adhere to the surface. Upon this grained plate is laid down a carbon negative resist (printed from a reversed positive) and this is developed in the usual manner of carbons by laving with hot water. The copper, covered with innumerable little acid resisting dots, and subsequently with the various thicknesses of gelatine of the carbon image, thin in the shadows and gradually thickening towards the purest white, is placed in an etching mordant of Iron Perchloride. It begins to etch first between the grains of the shadows which will therefore have the greatest depth, and gradually works through the half-tones, only touching the highlights towards the finish when the etching mordant has had time to permeate the thickness of the gelatin. All these little etched pits of varying depths give an ink holding surface. To make an impression, the etched plate is daubed with printer's ink and all that will not stay in the etched work is wiped off with soft rags. A piece of damped paper is laid on the surface, and the two are put through a press, which forces the paper with great pressure into every little pore of the plate taking the ink away with it. The result is a photogravure and for each print the plate must be inked, wiped, and pulled through the press, necessarily making a long and laborious process according to modern requirements. Until quite recently photogravure has remained very much unchanged since Fox-Talbot invented it some sixty years ago. It gives richness and beauty equaled by no other method of reproducing photographs. The scientific mind, however, is never idle, and much experimental work has been carried on to make it possible to print photogravures by machinery in such a manner that the speed of production would compete with halftone, and the quality absolutely annihilate it! Now almost simultaneously, in various parts of the world, the process has become a working success, and accompanying this article is a reproduction of one of my prints, "Thames Barges", from the press of the Mezzogravure Company of London, whose methods of working are a carefully guarded secret and the result of much experiment and research. Their gravures have all the richness of a hand-printed plate, and possessing besides this, a new and very remarkable silk-like luster in the highlights, due probably to the great pressure used in printing. A very beautiful process, I think you will admit, which will revolutionize and eventually displace that of the halftone. On the 7th of January of this year an English magazine, "Photography and Focus", published an eight-page supplement in machine printed photogravure. Just think of it, eight photogravures for a penny! In this number the process used, which is called "Rotogravure", is described at some length. It has much in common with the older hand-printed

variety, with important variations, however, that make rapid printing possible. A number of gelatin resists are printed from reversed positives as previously related, but the graining of the copper is supplanted by the carbon tissue being subsequently exposed slightly behind a ruled screen. These resists are then laid down on a large copper cylinder, which is etched by revolving it in a tank of acid. The cylinder is then placed in the press, and there it rotates on its lower surface against an ink -charged roller. The ink is "wiped" in this case by a steel knife or scraper before the cylinder comes in contact with the paper which receives the impression. This paper is in a large roll and after the first printing it passes over a warm roller which dries this impression so that it may be printed on the reverse side. It is finally cut into sheets and piled for folding. This press turns out prints at the rate of six thousand an hour. In the June issue of "Pall Mall" Magazine was a special supplement printed by this process consisting of four of my pictures which, as reproductions, compare very favorably with the originals. Even the text was printed in photogravure. This is accomplished by setting up the type, photographing it, and laying down a resist of it on the cylinder with the pictures. I have seen a copy of a daily newspaper printed in Germany by this method, with reproductions that put to shame the usual monstrosities perpetrated in this field. And now, in conclusion, let me wish this little magazine long life and prosperity. If it contains, as I am sure it will, something of the spirit of our good friend Clarence H. White, without whose example, sympathy and unselfishness "Platinum Print" would never have come into being, it will be worthy the support of all the friends of photography as a means of personal expression.