

In this variety of depth in the ink lies the first vital point of the invention. The artist needs in no way to think of this necessary condition; it comes without conscious effort in the making of his tone gradations. This painted surface, with the ink still wet or soft, is now dusted over with a particular powder—dusted thickly—until neither the black paint nor the bright parts of the plate are visible. A knock on the back of the plate will cause much of the superfluous powder to fall off, but by no means enough. Therefore, a soft, broad camel-hair brush has to be used to brush the surface gently, and in all directions until no more powder comes off. As this powder contains both coarse and fine particles it will be found that it has stuck to the various parts in the most discriminative way; that is, the coarser grain has adhered to the parts where the ink happened to be thick and the finer where the ink is less, such as in the grey or light tones. The importance of this discrimination cannot be overestimated as it effects so materially the quality of the printing surface.

We have now at this stage a painted picture, dusted with powder, which granulates the painted touches in perfect proportion to their depth of tone, without, however, in any way altering their autographic character. But it causes paint to cover new technical ground and is the first stepping stone towards the conversion of the *painted surface* into a *printing surface*. I may mention that the ink used is composed of German black and a mineral oil, and that the powder is composed of an inert and an active ingredient—the one to give granulation and the other conductability.

We now enter the third stage and take of this granulated surface a "metallic mould" or in other words an electrotype. Such is the conductability of this surface that (all things being right) in ten minutes a bluish of copper spreads over the whole surface, when subjected to the electric bath. This settles in and repeats the most minute crevices and interstices. The electric current and quality of the bath for this work is a matter of careful experience, but when once successful is absolutely certain in its action. The plate is left in the bath until the copper deposit is as thick as an ordinary printing plate, which may mean anything from six to ten days according to the thickness required. In taking the plate out of the bath it will be seen that the deposit of copper has not only gone over the edges of the original plate, but that the new deposited plate is thickest nearest the edges. By filing the edges we are enabled to separate the deposited from the original painted plate and in the deposited we get an exact negative or mould of the painted and powdered surface from which by the ordinary methods of copper plate printing, a perfect reproduction of the original painting is obtained. That is the process.

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### An Examination of the Nature of the State.\*

THE undertaking of the learned author of this work is no new one. In every age writers of eminence have sought to examine and set forth the nature of the State—from Plato and Aristotle downwards. Dr. Willoughby tells us that the aim of his treatise has been the construction of a new system of political philosophy, the determination of the ultimate nature of the State and the grounds upon which its authority may be justified. He remarks truly that many new phases of political life have emerged, such as federal unions between States formerly independent, new international relations, clearer distinctions between public and private rights, between moral and civic obligations, and that with these problems have arisen others which required for their solution keen philosophical analysis, and the highest degree of accuracy in the application of the terms used. We see that the author has, at least a sufficiently high conception of the greatness and difficulty of the task which he has undertaken, and he expresses himself with corresponding modesty in regard to what he has accomplished.

On the whole, high praise must be accorded for what he has done. A single perusal of a book like this will hardly reveal to the most careful reader all its excellencies and de-

fects. But we are at once impressed with the absence of all slovenliness of thought and expression, with the carefulness of the writer's discrimination of things which differ, and with the scientific exactness of his definiteness and arguments.

After an introductory chapter on the scope of the work, and another with preliminary definitions and distinctions, he proceeds in the third and fourth and fifth chapters to consider some theories of the origin of the state with special reference to the contract theory of Rousseau. In the sixth chapter he sets forth the true origin of the State, and perhaps this is the most important chapter in the book. In the State, he says, in the body politic, we have a unity created out of a mere sum of individuals by means of a sentiment of community of feeling and mutuality of interest, and this sentiment finds expression in the creation of a political power, and the subjection of the community and its authority. Without this "sentimental element," he says, we have only a mechanical union, or complexus of atoms; with it, we have a higher, more intimate, permanent, psychological unity. It appears, therefore, he says, that the origin of the State must be conceived as an act of a people rather than of individuals, and the transformation of a community or a society into a people cannot be due to any formal act on their part. Sentiments and desires are not thus formed. We are stating these pregnant principles mainly in the writer's own words. He illustrates them further under the heads of "The State not Artificial: Not a Mechanism;" and "The Personality of the State." In the subsequent chapters he treats of the Nature of Law, analytical jurisprudence, the power of the State (Sovereignty); the nature of the composite State; location of sovereignty in the body politic; the aims of the State; Governments: their classification. So much must suffice for the present on this very valuable book; but we hope to return to it at an early occasion.

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### Gibbon's History of the Decline and Fall of the Roman Empire.\*

WE wish to give a cordial welcome to this volume and to recommend it strongly to our readers for two reasons. In the first place, all educated men should know something of Gibbon's great work. It is a history which has never yet been superseded, and which, we may safely predict, never will be. But for all this, there is need of such an edition as is here provided for us by a very competent hand. It is seldom that Gibbon needs to be corrected in matters of fact, but it is no disparagement of his industry or ability to say that facts have come to light since his time which require some modification of his statements, and hence the necessity for an edition which shall be, as we say, brought up-to-date. Hitherto, by far the best edition for English readers has been that of the late Dean Milman; but that brilliant writer and excellent historian needs, in his turn, to be supplemented; and we can hardly imagine the work to be better done than it has been by Professor Bury. There are no unnecessary notes, which is something. We think there cannot be many, if any, passages needing illustration or completion which are not here dealt with. We have compared the volume throughout with Milman's, and we find nothing to censure in his additions or subtractions. We ought to add that the volume is nicely printed and got up, altogether a pleasant book to handle; and the price is moderate.

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### A Study in Hypnotism.†

Sidney Flowers' new book, "A Study in Hypnotism," just published, is decidedly original both in conception and treatment. The author outlines a treatise on modern hypnotism, interlarded with touches of a love story in a quaint manner. While the book, from a literary stand-point, contains many crudities, it makes interesting reading and will prove of value to all interested in hypnotic science. The book shows clearly the modern trend of hypnotic teaching.

\* "Gibbon's History of the Decline and Fall of the Roman Empire." Edited by J. B. Bury, M.A. In seven volumes. Vol. I. Price \$2. London: Methuen. Toronto: Copp, Clark Co. 1896.

† "A Study in Hypnotism." By Sidney Flower. Psychic Publishing Company, Chicago.

\* "An Examination of the Nature of the State." A Study in Political Philosophy. By W. W. Willoughby, Ph.D. Price \$3.00 New York: Macmillan; Toronto: Copp, Clark Co. 1896.