

In the first place the printed portion will leave a set off or impression on the zinc, and secondly the nitric acid attached to the non-printed parts of the paper will eat away and corrode the zinc, converting the whole, in fact, into a very shallow stereotype. The original being removed—perfectly uninjured—the whole zinc plate should next be smeared with gum water, which of course will not stick to the printed or oily part, but will attach itself to every other portion of the plate.

A charge of Printers' ink being now applied, this in its turn only attaches itself to the set off obtained from the print.

The final process, consists in pouring over the plate a solution of phosphatic acid which acts on the non-printed portion of the zinc, and produces a surface to which printers' ink will not attach. The process is now complete and from such a prepared zinc plate any number of impressions may be struck off.

The uses to which this ingenious invention may be applied are various, for instance, copies of rare prints may be obtained without the aid of an Engraver. Reproductions of books, or works out of print, may be had without setting up the type; authors may illustrate their own works and fac-similes of pen-and-ink sketches may be had at very inconsiderable expense."

It may be seen from this description that without some safe guard, forgery upon a large scale could be easily effected. The antidote is offered by the patent paper invented by Messrs. Glynn & Appel. It is as beautiful from its simplicity, as it is efficacious in its operation. It consists merely in impregnating or dyeing the pulp of which the paper is made with an insoluble salt of copper. After a series of experiments, the patentees preferred phosphate of copper to any other salt, and for this purpose sulphate of copper, and phosphate of soda are successively mixed with the pulp, which produce an insoluble salt, the phosphate of copper. Besides this a very small portion of a peculiar oily and non-drying soap is introduced, which affords a double protection.

The result of the copper being introduced into the paper is, that should a forger attempt to submit a note or cheque printed on this patent paper to the Anastatic process, wetting it, as previously described, with dilute nitric acid, and subjecting it to pressure on a zinc plate, a film of metallic copper is immediately deposited between the cheque and the zinc, not only preventing the set-off, or transfer of the impression, but cementing the paper so firmly to the zinc that it can only be separated by being destroyed. Thus the forger is punished by losing his note, the public is protected, and the banker benefited. Hitherto the safety of the banker has been in the elaborate engraving of the notes used, so that no one except a skilled engraver, could give a correct fac-simile, and such an engraver is not likely to attempt a forgery for the sake of the money to be derived from his labours, so that the work is entrusted to reckless but it may be expert hands, and this leads to the detection of the offence. It is different, however, with the Anastatic process, for any one who understands lithographic printing, may with the aid of a zinc plate, a little nitric acid, and a press, produce so perfect fac-similes of notes and cheques as to defy scrutiny.—*Family Herald.*

THE EMPIRE OF JAPAN.

When Paul stood in the midst of the Court of the Areopagus he said, "God hath made of one blood all nations of men to dwell on all the face of the earth," but how very impure must that blood, in the lapse of ages have become, that the varied impulses which are warmed by its radiant circulation are so diametrically opposed to each other, that the most transient approximation produces only jarring and strife. Not only has mankind lost all ties of family relationship and of a community of interest; but feelings the most rancorous, passions the most destructive, have supplied their place. The fact is that humanity manifests itself in so many varied aspects that we are frequently tempted to imagine that mankind cannot have sprung from one common stock, or that our great progenitor listened in lonely majesty to the minstrelsy of paradise, or was cheered and refreshed by the ambrosial fruit which clustered so profusely on the heavy laden boughs. Yet as we can in some measure account for, and reconcile with, this standard, the diversities which exist among ourselves, we are satisfied that if we had the means and appliances to enable us to enquire narrowly into the discrepancies that exist in more remote circles of life, we would find that they were all brought about by the recurrence of events set in motion by the pride or the covetousness of man. We need not wander far for an abundance of illustrations to shew the correctness of these remarks, but in obedience to the ideas which suggested them, we will turn our steps to the Empire of Japan.—Here we have humanity in its two aspects,—the natural and the unnatural—as fully developed as it can be, by the wildest and most barbarous Indian tribe that may be encountered. At the present moment the laws of that empire are so cruel, "that no Japanese ship or boat, or any native of Japan, shall presume to quit the country under pain of forfeiture and death; that any Japanese returning from a foreign country shall be put to death; that whosoever presumes to intercede for offenders shall be put to death;" and these barbarous laws have been in existence since 1637. The insular Empire of Japan is about 1200 miles in breadth containing a population estimated at 30,000,000. On the North it has the sea of Ochotsk, on the east and south the Pacific ocean, and on the west the sea of Japan.

The illustrious Venetian traveller Marco Polo thus describes it under a Chinese name:—"Zipangu" he says, "is an island in the Eastern Ocean, situated at the distance of about fifteen hundred miles from the main land or coast of Manji. It is of considerable size; its inhabitants have fair complexions, are well made, and are civilized in their manners. Their religion is the worship of idols. They are independent of every foreign power, and governed only by their kings. They have gold in the greatest abundance, its sources being inexhaustible. To this circumstance we are to attribute the extraordinary richness of the sovereign's palace, according to what we are told by those who have had access to the place. The entire roof is covered with a plating of gold in the same manner as we cover houses, or more properly churches with lead. The ceilings of the halls are of the same precious metal, and many of the apartments have small tables of pure gold considerably thick; and the windows also have golden ornaments." Such is the account given by Marco Polo, but the empire consists of an unknown number of islands, all clustered together between Corea and Kamtschatka, and separated from the continent of Asia by the sea of Japan. Japan proper consists of three large islands, Kioosoo or Kewsew, Sitkokf, and Nippon. Kioosoo the most western is about 200 miles long, with an average breadth of 80 miles. Sitkokf may

The web of life in order to produce good measure should be woven in the loom of virtue.

The publishers of a paper in Iowa give as an excuse for want of reading matter, that one of the editors got whipped at a horse-race, and the other was on a spree.