

tendency may be easily carried, it amounts either to toadyism or idolatry. And neither of these is desirable.

A TRIUMPH FOR DECENCY.

Disreputable journalism received a crushing blow in Chicago last Saturday, when, the jury having returned a verdict of guilty, the wretched proprietor of the Dispatch in that city was sentenced to \$2,000 fine and two years' imprisonment for circulating his obscene literature through the mails. There may be delay in enforcing the terms of the sentence, but there is little chance for the miserable man to escape the just punishment that has been passed upon him.

It would be a happy day for the country, and one more welcome to the decent press than anybody else, if the same swift justice could overtake all others of the Dunlop and the Dispatch ilk. They are a foul disgrace to any community where they operate, a blot upon the fair exterior of true civilization. They are not only an experiment in vice, but an exponent of and apologist for it. They live upon depravity and sin; worse than that, they disseminate its seeds and scatter moral disease everywhere. The innocent and guileless are their prey, and under the false garb of high independence they are the most effective aids to blackmailers, hypocrites, panders and thugs.

In fining Joseph R. Dunlop two thousand dollars when he could have fined the sum at thirty thousand, and in giving him two years' imprisonment when it might have been sixty, the court cannot be charged with having erred on the side of severity. For such a crime there is absolutely no ground for mercy. The only regret honest people will have in the matter is that the money must not be heavy enough to destroy the vile newspaper root and branch, and that the jail penalty was not stern enough to shut the base editor out of the sight of decency for life.

X-RAYGRAPHY.

Only a few weeks ago the announcement was made that Professor Roentgen of Wuerzburg had discovered a process whereby objects within surfaces generally considered opaque could be photographed. Experiments are now being made by prominent scientists on both sides of the Atlantic with startling results.

The principle on which the discovery rests will be understood from the following summary of an account given in the *Weser Zeitung*, and reproduced in the *Open Court*, a periodical devoted to religion and science and published in Chicago.

A long time ago Geissler and Gascott constructed closed tubes filled with rarefied gases, in the end of which platinum wires were soldered. Afterwards, Professor Hittorf attached to the electrode through which the negative electricity enters, a flat strip of metal. This electrode is called the cathode. When the gas is quite rarefied this strip remains dark, while opposite the cathode, on the tube, a spot is visible which glows according

to the composition of the gas, with a yellow, green or bluish light. This is the fluorescent spot. A body within the tube intercepts these cathode rays and throws a shadow on the walls of the tube.

The tubes in this country are known as Crooke's tubes. Crooke originated the hypothesis that the cathode rays are material particles emitted from the metal strip in rectilinear paths. German scholars, however, took the view that the action was undulatory and bore some resemblance to the rays of light.

At this stage of the investigation Professor Roentgen planned his experiments. The room in which he was working was darkened. The tube was enveloped in a casing of wood, impenetrable to the electric light and the rays of the sun. Near by was a screen covered with a substance commonly used in fluorescent experiments. It emits a bright white glow when it is struck by violet light rays or cathode rays.

This screen was immediately illuminated whenever the electricity was made to pass through the Crooke's tube, although the latter was enclosed in an absolutely opaque casing and was totally invisible to the eye. The conclusion was inevitable that the rays from the tube actually passed through the black casing though this was opaque to ordinary light. The rays in question make no impression on the retina of the eye; that is, they produce no sensation of light. They issue from the part of the tube where the glass wall is struck by the cathode rays.

It was further found, if an object were placed between this spot and the screen, a distinct, but not perfectly dark shadow of the body was visible on the screen. The rays, consequently, passed through such bodies, but became weakened or absorbed in proportion to the thickness of the body penetrated.

Scientists are inclined to the opinion that Roentgen's discovery is nothing less than that of an entirely new physical agency, the long-sought-for longitudinal waves of the ether. Common light-waves are supposed to be transversal, originating in a similar way as the waves in water struck by a stone thrown into it. The presence of longitudinal waves in the hypothetical ether has long been suspected but without actual demonstration.

The practical side of the new discovery at once became apparent. It was found possible to photograph, for instance, the skeleton of living persons, the new rays penetrating the covering of skin and flesh. The *Open Court* reproduces a photograph by Professor Schubert, of Hamburg, in which the interior of a hand is laid bare. The rays have passed through the fleshy parts, which are but faintly seen on the picture, while the bone parts are more distinctly visible, and the gold ring encircling one finger stands out as a considerably dark object. The picture is really a photograph of the shadow of the objects rather than of the objects themselves, and the process by which it is obtained is so far known as x-raygraphy. Mr. Edison is now at work trying to obtain a picture of

the brain, and his experiments are watched with much interest. In Chicago, as will be seen in a dispatch from that place Messrs. Scribner and Barry, the latter a physician, have already enlisted the new discovery in the service of the medical art. They have succeeded in locating in a man's hand a buck-shot that for two years had caused pain but eluded all efforts to find it.

There is practically no limit to the usefulness of the new x-rays, as they are called, when their nature shall be fully understood. If by their aid the shadows of hidden things can be materialized, their discovery must be the signal of a new revolution in human arts and pursuits. By their aid, at a no distant future, the very interior of the mountains may be made visible and the earth itself become, as it were, a crystal, a sea of glass.

VALUE OF GOLD AND SILVER.

A curious reason for the improved price of silver is advanced by an eastern gold organ, the argument being none other than that the firmness of silver quotations is due to the enlarged production of gold. The proposition otherwise stated is of course that gold is getting cheaper; and if overproduction makes gold cheaper, the theory of the enemies of the white metal that silver is only a commodity and should be treated as such, applies equally to the yellow metal. Then what becomes of the "fixed value" of gold, which even in their most enthusiastic moods is relied upon most strongly by the monometallists to support their idea of a single gold standard?

What causes the rise in the price of the white metal under the increased production of gold and the stationary or reduced production of silver is undoubtedly that the value of the silver is measured by the gold. But would not an increased demand for silver have the same effect? It would surely do so. But inasmuch as the opening of the mints to silver coinage would increase its value, and would reduce the demand for and lessen the value of gold, the gold patriots resist it to the last extremity and exclaim vain things about the "honest" dollar. The honesty of motives is a subject which they do not seem so anxious to discuss.

IN SEARCHING out the veterans of southern Utah, the St. George Union names a lady who "was baptized into the Church in 1841." That was 555 years ago; and the Union must excuse us from swallowing its pill this time.

THERE ARE a great many people who are convinced that the problem has been narrowed down to this: Shall the government own the railways, or shall the railways own the government?

IS IT any wonder that times are hard in cities where there are twice as many saloons as bakeries and grocery stores?

SECRETARY CARLISLE may not be an ideal treasury chief, but no one has ever had better luck in selling bonds.

IT TAKES about twenty-five million bushels of oysters per year to satisfy the American fondness for the bivalve.