cess, is rendered sensitive, not by nitrate of silver, but by being combined with the salt of uranium—would yield a far better surface to the action of the light; and the impressions fixed upon it would be free from all those blots and inequalities which mark more or less all photographic impressions hitherto produced. This alone is a great gain. The other advantages claimed by the inventor—of absolute permanence and simple and easy manipulation—are not so clearly established; but there seems great reason to think that an important step in advance has been made. Time alone can be accepted as the true test of all claims for permanence; but the impressions obtained by the new process are said to have been exposed to the action of sun and rain for weeks together without betraying any sign of change."

At a recent meeting of the London Photographic Society, a letter was read from Mr. Tunny, the well-known photographer of Edinburgh. He says: "I have been all out of breath, so to speak, in anxiously waiting the disclosure of the 'Wotblytype,' but I suppose we are destined to remain somewhat longer in suspense. In the meantime I have not been idle; I have been endeavouring, if possible, to ascertain what can be made of uranium, as that is the hinted-at salt, in combination with other metallic compounds. I have, in the first place, got very vigorous prints by the nitrate of uranium and chloride of gold—also good results with the uranium and silver; perhaps as good as any have been the result of the ammonia phosphate of silver; all these, and many others that will suggest themselves, give very vigorous prints, simply combined with collodion; but there is the drawback of want of sensitiveness, taking nearly double the ordinary time to print; however the weather has been very bad for conducting my experiments.

"I cannot, as yet, give the definite formulæ for the above, as I have used them in every conceivable proportion; but if any of your readers will take, firstly, half an ounce of spirit of wine, add nitrate of uranium (as much as it will dissolve by long and continual shaking) now add half an ounce of ether, three grains chloride of gold, and six grains of gun-cotton, they will have a collodion that will print by its being simply poured over a sheet of paper laid upon a piece of glass. The prints are fixed by being placed for a few minutes in a bath of water slightly acidulated with nitric or oxalic acid.

"Secondly: The phosphate of silver being dissolved with the smallest quantity of ammonia, just sufficient being added to redissolve it, added to ordinary plain collodion, in the proportion of six grains to the ounce, makes a very sensitive printing collodion.

"Thirdly: Nitrate of silver three grains, dissolved in a drop or two of distilled water, added to the first or uraniumized collodion, *without the gold*, also makes a good printing collodion.

The *Scientific American* says:—"Until the patent is granted here all our photographers are at liberty to make use of the process, and for their convenience we subjoin the following directions, extracted from the British specification:

To one pound of plain collodion add from 1½ to 3 ounces of nitrate of uranium and from 20 to 60 grains of nitrate of silver.

The paper is prepared for printing by simply pouring the above sensitized collodion upon its surface, and hanging the sheets to dry in the dark.

The printing is accomplished by exposing the paper to light under the negative in the usual manner, and for about the usual time required for silvered paper; print until the desired depth is reached. It is not necessary, as in the ordinary process, to print the positive to a greater intensity of color than the fixed picture is intended to have.

After printing immerse the picture in a bath of acetic acid for about ten minutes, or until that portion of the salts not acted upon by the light has been dissolved. The picture is now fixed and finished by thorough washing or rubbing with a sponge or brush, or by rinsing in pure water; then dry. Changes in the tone of the picture to suit the taste may be made before drying, by using a bath of chloride of gold, or of hyposulphite of soda.

Such, in brief, is the new Wothlytype process. We have given it a few trials, with the most gratifying success. We presume that it will ere long be recognized among photographers as an established and excellent method of printing. It is not claimed that it surpasses the silver printing, but the superior convenience of the Wothlytype process will be a very strong reason for its employment, if the pictures it produces prove equal, or nearly equal, in durability or other qualities, to those resulting from the old method of printing.

The uranium sensitized paper, it is stated, can be preserved for an indefinite time in properly-prepared receptacles, from which light is excluded. This is another important advantage, as the common silvered paper loses its value soon after preparation.

The uranium prints, made as above described, have a smooth and glossy appearance. When an unglazed surface is desired the sensitive salts are dissolved in alcohol and water, adding some saccharine substance. The paper is then coated with the mixture

The best results of the Wothlytype process ensue when a well-sized, fine and very hard-rolled paper is employed. It is recommended to coat the surface of the paper with a sizing of starch, arrowroot or gum tragacanth."

PHOTOGRAPHIC SOCIETY OF SCOTLAND.

New Method of Photographic Printing.

Mr. Thomas Fox, of Alloa, read the following communication:—

"I beg to submit to your notice a process of printing without nitrate of silver; it is very simple, very rapid, and the ingredients required are of the cheapest, and at the same time it produces pictures very distinct, the shades of an intense black, equal if not darker than any known process, and which will not fade from ordinary exposure, from the known chemical combination of the materials used. It is the exact counterpart from printing with nitrate of silver, and whitens the paper where exposed to light, the shaded parts becoming black, and yielding very fine and soft gradations of tone when treated with the following simple process.