Bushels do	2,821,962	3,075,170
Acres of rye	70,376	233,219
Bushels do	973,181	2,575,438
Acres peas	460,595	46,491
Bushels do	9,601,396	580,827
Acres oats	678,337	1,109,565
Bushels do	21,220,874	19,052,833
Acres corn	79,918	632,235
Bushels do	2,256,290	17,983,888
Acres potatoes	137,266	235,073
Bushels do	15,325,920	28,237,762
Acres turnips	73,409	8,124
Bushels do	18,206,950	1,282,388

The contrast between New York State and Canada, as afforded by these statistics, is very favorable to us. With far less population, less improved land, and less value of implements, our farmers turn out far more fall wheat, spring wheat, peas, oats, turnips, &c. Of Indian corn, rye, and potatoes, the New Yorkers rather take the lead, and they are also set down as doing so in barley in the above table. But the barley crop has had an immense increase in Upper Canada since 1861, and we have little doubt that our next census will show that we now raise more barley than New York does. As to quality, it is freely admitted by the Americans themselves that we raise the best barley to be had on the Continent. The higher price paid for our barley fully attests this fact.

One of the most gratifying features of the above comparison, is the fact that our lands yield more per acre than those of New York State. Of fall wheat New York sowed within some 28,000 acres of the breadth sown in Canada, but we reaped over 2,000,000 bushels more than they did. The average quantity of oats raised by us in 1861, was fully more than 31 bushels per acre—but New York only averaged 17 bushels per acre! As will be seen by reference to the table, New York reaped 19,053,198 bushels of oats from 1,109,565 acres sown, whilst our Western farmers, from 678,337 acres, took off no less than 21,220,874 bushels! This fact, of itself, speaks volumes for the fertility of Canadian soil. The small quantity of turnips raised in New York appears singular—our returns being 18,206,950 bushels as against 1,282,388. Taking the returns all in all, they indicate pretty clearly that our farmers have nothing to envy in the Empire State, and that either as regards excellent soil or good farming, we can compare favourably with our neighbours.—*Trade Review.*

Photography.

A new Actinic Light.

A new light for photographic purposes has been proposed by Mr. Sayers. It is composed as follows:—Nitrate of potash in powder, and well dried, 24 grammes; flour of sulphur, 7 grammes; red sulpheret of arsenic, 7 grammes. These three ingredients, being well ground together, the mixture on being ignited will yield a most powerful photogenic light; but 200 grammes of the compound are necessary to make the light last half a minute. The cost of the mixture is not more than 80 centimes per kilogramme, which would last two minutes and a half, while light from magnesium wire costs about 1s. per minute.

Production of Natural Colors by Photography.

M. Neipce de St. Victor has recently communicated to the French Académie des Sciences the results of his latest researches, having for their object to obtain and fix the colors of nature by means of photography. His paper is full of very important, new and interesting facts, proving that the fixation of natural colors on the photographic tablet as a practicable and available result, which for a long time has been considered as a dream, is not perhaps so far from being fully realized—not as a mere scientific experiment, but as the completion of the splendid discovery of photography.

The process of M. Niepce de St. Victor may be shortly described as follows:—The silver plate must first be chlorurised, and then dipped into a bath containing fifty centigrammes of an alcoholic solution of soda for every 100 grammes of water, to which a small quantity of chloride of sodium is then added. The temperature of the bath is raised to about sixty degrees centigrade, and then the plate is only left in for a few seconds, the liquid being stirred all the time. The plate being taken out, it is rinsed in water and then warmed until it acquires a bluish-violet hue, which is probably produced by the reduction of a small quantity of chloride of silver. The plate is now coated with a varnish composed of dextrine and chloride of lead. In this way all the colors of the original, including white or black of more or less intensity, are reproduced, according as the plate has been prepared, and as the blacks of the copy are either dull or brilliant. The reduction of the chloride should not be too great, because otherwise nothing but pure black or pure white could be obtained; and in order to avoid this inconvenience a little chloride of sodium is added to the soda bath. A few drops of ammonia will produce the same effect. By this process a colored drawing, representing a French guardsman, was reproduced by M. Niepce, with the exception of one of the black gaiters, which he had cut and replaced with white paper. The black hat and the other gaiter produced a strong impression on the plate, while the white gaiter was perfectly reproduced in white. Much more intense blacks may be obtained by previously reducing the stratum of chloride of silver by the action of light; but then all the other colors lose the brilliancy in proportion.

This production of black and white is a considerable step in heliochomy. It is a most curious and interesting fact, for it would prove that black is not entirely the absence of light, but is a color of itself, producing its own effects, as well as the other colors. This was illustrated by the experiment made at the suggestion of M. Chevreul, the celebrated member of the Académie des Sciences whose known researches on the contrast and effect of colors are so instructive and interesting. Accordingly, M. Neipce tried to represent on his plate the black produced by the absence of light in a hollow tube. But the hole produced no effect, or rather it was negative, which is not the case when the black of natural objects, represented in a