during the past year, of which 2,730 were presented, 28,426 were purchased, and 7,686 acquired by copy-right. 819 maps, charts and plans have been added, in 3,326 sheets, and 44 atlases complete. 2,378 pieces of music have been obtained. The total number of articles received by this department has been 72,214 of which 1,283 were received under the international copyright treaties. 300,000 stamps have been impressed on these articles.

Population	of Nev	v Vork	City	for	210	Years
ropunation	OI NCV	A TOLV	ULLY	TOT	ALV.	TOUTS

Population in 1656	1.000
Population in 1673	2,000
Population in 1696	4,302
Population in 1731	8.628
Population in 1756-one hundred years	10.381
Population in 1773	21.876
Population in 1786	23,614
Population in 1790	33,181
Population in 1800	60 489
Population in 1810	90,703
Populatien in 1820	123 700
Population in 1825	166 089
Population in 1830	202 589
Dopulation in 1835	270,068
Dopulation in 1840	312,852
Dopulation in 1845	371,002
Dopulation in 1850	515 204
Dopulation in 1855 not quite two hun-	010,004
ropulation in 1000-not quite two num	690 910
Deputation in 1980	049,010
Dopulation in 1965	1 002 950
горинаной на 1000	1,003,200

The *Argus* states that the population of Albany is 62,825 persons.

The population of the city of Syracuse is now 31,924 persons, being an increase of 3,805 since 1860.

# Miscellaneous.

## Useful Plants.

According to a German author, the number of useful plants has risen to about 12,000; but it must be remembered that these researches have been completed only in certain portions of the earth.. There are no less than 2500 known economic plants, among which are reckoned 1,100 edible fruits, berries and seeds; 50 cereals; 40 uncultivated edible graminaceous seeds; 23 of other families; 260 comestible rhizomes, roots, and tubers; 37 onions; 420 vegetables and salads; 40 palms; 32 varieties of arrowroot; 31 sugars; 40 saleps. Vinous drinks are obtained from 200 plants; aromatics, from 266. There are 50 substitutes for coffee; 129 for tea. Tannin is present in 140 plants; caoutohoue in 96; gutta percha, in 7; rosin and balsamic gums, in 389; wax, in 10; grease and essential oils, in 330; 88 plants contain potash, soda, and iodine; 650 contain dyes; 47, soap; 250, fibres which serve for weaving; 44, for paper making; 48 give materials for roofing; 100 are employed for hudles and copses. In building 740 are used; and there are 615 known poisonous plants. According to ENDICHER, out of the 278 known natural families, 18 only seem up to the present time, to be perfectly useless.—Cosmos.

## New Experiment with Magnesium.

In experimenting with this new metal, Mr. J. N. Hearder, of Plymouth, is said to have discovered some explosive compounds of tremendous power and striking peculiarities. He ignited a small portion (about 20 grains) of one of these compounds during a lecture which he gave at the Plymouth Mechanics' Institute, the instantaneous and dazzling effect of which upon the audience was like that of a flash of lightning. On causing two bars of magnesium to form the terminals of a powerful voltaic battery, a most intense combustion ensued : one of the bars speedily became red hot, entered into ebullition, and then burnt so furiously that it became necessary to plunge it into the water to prevent its falling on the plat-form. In this process, portions of the burning metal detached themselves, floating blazing on the surface of the water, decomposing in the manner of potassium, and liberating hydrogen, which also burned.

### A Chemical Freak.

A platina crucible is made and maintained red hot over a large spirit lamp. Some sulphurous acid is poured into it. This acid, though at common temperature one of the most volatile of known bodies, possesses the singular property of remaining fixed in the red hot crucible, and not a drop of it evaporates, in fact, it is not in contact with the crucible, but has an atmosphere of its own inter-A few drops of water are now added to posed. the sulphurous acid in the red hot crucible. The diluted acid gets into immediate contact with the heated metal, instantly flashes off, and such is the rapidity and energy of the evaporation that the water remains behind, and is frozen into a lump of ice, in a hot crucible! from which seizing it the moment before it again melts, it may be thrown before the eyes of the astonished observer. This is indeed a "piece of natural magic," and as much like a miracle as any operation of the forces of nature could produce. It is certainly one of the most singularly beautiful experiments imaginable. It was devised by a French savan, to illustrate the repellant power of heat radiating from bodies at a high temperature, and of the rapid abstraction of heat produced by evaporation.

#### New Process of Picture=Cleaning.

To see one of Titian's masterpieces in the state in which he left his easel is a pleasure now to be enjoyed. By a breath the chilling effect of 350 years is dissipated; the colors glow almost as they did to Titian at the moment he put aside his brush. The vivifying breath is the fume of alcohol; its application 'to this use is owing to Professor Pettenkofer's sagacity, and to the enterprise of Sir C. Eastlake and Mr. Wornum. Oil-pictures of ancient date become clouded by dust deposit; this can be wiped off. They also are observed by an opacity in the varnished surface; this can be scraped away, but rarely without serious detriment to the pictures. Too many flawed and glar-

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