

NOTES ON SCIENCE AND ART.

Gold in the Arts—It has been ascertained that in Birmingham, England, not less than one thousand ounces of fine gold are used weekly, equivalent to some \$900,000 annually; and that the consumption of gold leaf in eight manufacturing towns is equal to five hundred and eighty-four ounces weekly. For gilding metals by electrotype and the water gilding processes, not less than ten thousand ounces of gold are required annually. A recent English writer states the consumption of gold and silver at Paris at over 18,000,000 of francs. At the present time the consumption of fine gold and silver in Europe and the United States is estimated at \$50,000,000 annually.

Return of the Great Comet—The eminent astronomer, M. Babinet, member of the Academy of Sciences, and M. Bomme, of Middleburg, Holland, have been making some interesting investigations in respect to the return of the great comet which appeared in the years 104, 392, 682, 975, 1264, and 1556. M. Bomme has gone over all the previous calculations, and made a new estimate of the separate and combined action of all the planets upon this comet of three hundred years, the result of which severe labor gives the arrival of this rare visiter in August, 1858, with an uncertainty of two years, more or less.

Microscopic Photographs—Some microscopic photographs exhibited at Manchester, England, have excited much admiration. One of the size of a pin's head, when magnified several hundred times, was seen to contain a group of seven portraits of members of the artist's family, the likenesses being admirably distinct. Another microscopic photograph, of still less size, represented a mural tablet, erected to the memory of William Sturgeon, the electrician, by his Manchester friends. This little table covered only 1-900th part of a superficial inch, and contained 680 letters, every one of which could be distinctly seen by the aid of the microscope.

The Reading Bricks of Babylon—According to the Leeds (English) *Mercury*, Col. Rawlinson has just discovered among the ruins of ancient Babylon an extensive library—not, indeed, printed on paper, but impressed on baked bricks—containing many and voluminous treatises on astronomy, mathematics, ethnology, and several other most important branches of knowledge. These treatises contain facts and arguments, which, in his opinion, will have no small effect on the study of the sciences to which they relate, and, indeed, on almost every branch of learning, and which throw light upon Biblical history and criticism, and the history of our race.

THE Smithsonian Institution has adopted the following rules for the distribution of its publications:—

1. They are to be presented to all learned societies which publish transactions, and give copies of those in exchange to the Institution.
2. To all foreign libraries of the first class, provided they give in exchange their catalogues of other publications, or an equivalent in their duplicate volumes.
3. To all colleges in actual operation in this country, provided they furnish in return, meteorological observations, catalogues of their libraries and their students, and all other publications issued by them relative to their organization and history.
4. To all states and territories, provided there be given in return, copies of all documents published under their authority.
5. To all incorporated public libraries in this country, not included in any of the foregoing classes, now containing more than 7,000 volumes; and to smaller libraries, where a whole state or large district would be otherwise unsupplied.
6. Separate memoirs are sometimes presented to minor institutions.

THE BROCK MONUMENT.—Referring to the Brock Monument, the *Niagara Mail* says:—There will be but one column in the world superior in height to Brock's Monument, and probably not one exceeding it in beauty and position. The ground in the neighborhood of the column is covered with massive pieces of work; stone statues of warriors, lions, and elaborately carved work, that are to adorn the cornice of the pedestal capital and entablature of the column. Among these stands a colossal statue of General Brock, seventeen feet in height, which will be placed on the top of all. These figures are cut out of the same kind of stone which forms the monument, and are executed in a bold and flowing style that will give an aspect of much animation to the monument. They reflect much credit, indeed, upon the architect and workmen engaged.

Departmental Notices.

PROVINCIAL CERTIFICATES GRANTED BY THE
DEPARTMENT OF PUBLIC INSTRUCTION
FOR UPPER CANADA.

EDUCATION OFFICE, Toronto, 15th October, 1855.

The Educational Department, on the recommendation of the masters of the Normal School, and under the authority of the Upper Canada School Act of 1850, 13th and 14th Vict., chap. 48, has granted the undermentioned students of the Normal School during the Fourteenth Session, 1855, Provincial Certificates of qualification as Common School Teachers in any part of Upper Canada.

[Each Certificate is numbered, and recorded in the Register of the Department in the following alphabetical order; but the order does not indicate any distinction of merit in the class.]

FIRST CLASS.

<i>Males.</i>	
307 William Carlyle.	314 Alexander Lester.
308 David Ormiston.	315 John Taylor.
<i>Females.</i>	
309 John Harris Comfort.	316 Josephine Witmore Clarke.
310 John Jessup.	317 Kate Gunn.
311 William Henry King.	318 Elizabeth Adams.
312 Bernard Kerr.	319 Emmeline Shadd.
313 David Blair.	320 Mary Brown.

SECOND CLASS.

<i>Males.</i>	
321 Andrew Allison.	336 Henry Hicks.
322 James Bowerman.	337 Thomas Steele.
323 Alexander Campbell.	338 Alexander Thompson.
<i>Females.</i>	
224 Henry Clarke.	339 Eleanor Leach.
325 James Hay, Junior.	340 Elizabeth Eleanor Kennedy.
326 Duncan Crane.	341 Mary Foster.
327 William Hackett.	342 Elmira Flood.
328 James Keating.	343 Mary Lester.
329 John McPherson.	344 Sophia Caroline McLean.
330 Alexander Campbell Osborne.	345 Margaret Cath. McDonnell.
331 Gilbert Platt.	346 Mary Ann Munyard.
332 Samson Roberts.	347 Henrietta Simpson.
333 Samuel Simpson.	348 Susannah Robinson.
334 David Johnston.	349 Amelia Robertson.
335 William Bernard Danard.	350 Sarah Elizabeth Tewksbury.

THE NORMAL SCHOOL.

The next session of the Normal School will commence on the 15th day of November. Candidates for admission must apply during the first week of the session.

TEACHERS' SCHOOL REGISTERS.

As a supply of School Registers are now being sent by express to the county clerks for gratuitous distribution through the local superintendents, parties requiring Registers should apply for them to their local superintendent. Should the stock of any county clerk be exhausted, it can be replenished on application to the Educational Department; but the Department should not be put to the additional inconvenience and trouble of supplying isolated school sections direct, (as is frequently done,) in addition to the local facilities which it has already given to supply wants of this kind. These Registers are supplied gratuitously by the Department.