

England, France, Ireland, Italy, and Germany have all had the honor of furnishing the stand points of discovery. Only one has been discovered by an American astronomer,—Euphrosyne, which was discovered by Ferguson, at Washington, September 1, 1854. The latest discovery, the 40th, was made at Paris, on the 31st of March, by M. Goldschmidt. In brilliancy the new planet resembles a star of the 9th or 10th magnitude.

The following table presents in a compact and portable form the principal facts in regard to all the asteroids:—

No.	Name.	Discoverer.	Place and date of Discovery
1	Ceres	Piazzi	Palermo 1801, Jan. 1
2	Pallas	Olbers	Bremen 1802, Mar. 28
3	Juno	Haringer	Lilienthal 1804, Sept. 1
4	Vesta	Olbers	Bremen 1807, Mar. 20
5	Astræa	Hencke	Drissen 1845, Dec. 8
6	Hebe	Hencke	Drissen 1847, July 1
7	Iris	Hind	London 1847, Aug. 13
8	Flora	Hind	London 1847, Oct. 18
9	Metis	Graham, near Sicot	1848, April 2
10	Hygeia	De Gasparis	Naples 1849, April 12
11	Parthenope	De Gasparis	Naples 1850, May 11
12	Victoria	Hind	London 1850, Sept. 13
13	Igeria	De Gasparis	Naples 1850, Nov. 2
14	Irene	Hind	London 1851, May 19
15	Eunomia	De Gasparis	Naples 1851, July 29
16	Psyche	De Gasparis	Naples 1852, Mar. 17
17	Thetis	Luther	Bilk 1852, April 17
18	Melpomene	Hind	London 1852, June 24
19	Fortuna	Hind	London 1852, Aug. 22
20	Masilia	De Gasparis	Naples 1852, Sept. 16
21	Lutetia	Goldschmidt	Paris 1852, Nov. 15
22	Cullipe	Hind	London 1852, Nov. 16
23	Thalia	Hind	London 1852, Dec. 15
24	Themis	De Gasparis	Naples 1852, April 5
25	Phocæa	Clacornac	Paris 1853, April 7
26	Proserpina	Luther	Bilk 1853, May 5
27	Entepe	Hind	London 1853, Nov. 8
28	Hellona	Luther	Bilk 1854, Mar. 1
29	Amphitrite	Muth	London 1854, Mar. 1
29	Ursæ	Hind	London 1854, July 22
31	Euphrosyne	Ferguson	Washington 1845, Sept. 1
32	Panopæa	Goldschmidt	Paris 1854, Oct. 26
33	Polyhymnia	Clacornac	Paris 1854, Oct. 28
34	Circe	Clacornac	Paris 1855, April 6
35	Leucothea	Luther	Bilk 1855, April 10
35	Atalanta	Goldschmidt	Paris 1855, Oct. 5
37	Fides	Luther	Bilk 1855, Oct. 5
38	Leda	Clacornac	Paris 1856, Jan. 12
39	Lætitia	Clacornac	Paris 1856, Feb. 8
40		Goldschmidt	Paris 1856, Mar. 31

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St. Johnsbury, May 31, 1856.

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### THE CONSUMPTION OF SMOKE.

At the meeting of the Society of Arts on Wednesday evening a paper was read by Dr. N. Arnott, F. R. S., on a new smoke-consuming and economical fire-place, with additions for obtaining the healthful warming and ventilation of houses. He stated that the great evils with the common coal fires were—first, production of smoke; second, waste of fuel; and, third, defect of warming and ventilation. After reviewing the evils arising from smoke in the interior of houses, and in the external atmosphere, which in the washing of clothes alone costs the inhabitants £1,500,000 more than the same number of families residing in the country, besides being inimical to health; the question of waste of fuel was examined, and the opinion of Count Rumford was quoted, who declared that five-sixths of the whole heat produced in an ordinary English fire went up the chimney with the smoke, to waste. This estimate was borne out by the facts observed in countries where fuel was scarce and dear, as in some parts of continental Europe, where it was burnt in close stoves that prevented the waste, and with these a fourth part suf-

ficed to maintain the desired temperature. The author proceeded to observe that if fresh coal, instead of being placed on the top of a fire where it must unavoidably emit visible pitchy vapour or smoke, be introduced beneath the burning red-hot coal, so that its pitch, in rising as vapour, must pass among the parts of the burning mass, it would be partly resolved into the inflammable coal gas, and would itself burn and inflame whatever else it touched. Various attempts had been made to feed fires in this way, of which the most important was that introduced by Mr. Cutler, about 30 years ago. He placed a box filled with coal immediately under the fire, with its open mouth occupying the place of the removed bottom bars of the grate, and in the box was a moveable bottom, supporting the coal, and by pressing which the coal was lifted gradually into the grate to be consumed. The apparatus for lifting, however, was complicated and liable to get out of order, which, with other reasons had caused this stove to be little used. In Dr. Arnott's new fire-place the charge of coal for the whole day was placed immediately beneath the grate, and was borne upwards as wanted by a piston in the box, raised simply by the poker used as a lever, and as readily as the wick of an argand lamp was raised; and the fire was under command, as to its intensity, almost as completely as the flame of the lamp. To light the fire wood was laid on the upper surface of the fresh coal filling the box, and a thickness of three or four inches of cinder or coked coal, left from the fire of the preceding day, was placed over it. The wood being then lighted, instantly ignited the cinders above, and at the same time the pitchy vapour from the fresh coal below, rose through the wood-flame and cinders, and became heated sufficiently to enflame itself, and so to augment the blaze. When the cinder was once fairly ignited, all the bitumen rising through it afterwards became gas, and the fire remained quite smokeless for the remainder of the day. In this grate no air was allowed to enter at the bottom, and combustion, therefore, only went on through the bars. The unsatisfactory results of some other attempts had been owing, in part, to combustion proceeding downwards, owing to the admission of air below. After the reading of the paper a discussion ensued, in which the Chairman, Lord Ebrington, Dr. Hoffman, Mr. R. Hunt, Mr. Lee Stevens, Mr. E. Chadwick, C. B., and Mr. W. Ellis took part. The general opinion seemed to be strongly in favor of this form of fire-place, and that by it many of the evils arising from the present form, and from the presence of black visible smoke in the atmosphere, might be avoided.

### MEANS OF EDUCATION IN ST. PETERSBURG.

"The University of St. Petersburg is one of the most recent academies of the Russian Empire. Catherine II. had instituted in her capital a Normal gymnasium, which in 1819 was elevated to the rank of university. In 1824 it numbered only thirty-eight professors and fifty-one students. In 1841, fifty-eight professors and a hundred and three students. Its expenses each year amounted to three hundred thousand francs. The salary of the ordinary professors is 5,800 francs, that of the extraordinary ones, 4000 francs. With this university are connected 9 gymnasia and two hundred and 86 schools of an inferior order, which in 1841 contained sixteen thousand and fifty-four pupils. The curator of this university, Prince Gregory Wolkonsky, has a reputation for thorough knowledge acquired here and in foreign countries. It is he who rules this institution and the