

CENTENARIES

Carlisle, Anthony (1768-1840)

SIR ANTHONY CARLISLE, a distinguished British surgeon, was born near Durham in 1768. The early part of his medical education was at Durham under Mr. Green, founder of the hospital of that town. He completed his education under Mr. Watson of the Westminster Hospital where he succeeded him as surgeon in 1793. He continued in that post till his death. From 1808 he also held the post of professor of anatomy to the Royal Academy.

Carlisle was a good surgeon. His introduction of the thin-bladed, straight-edged amputating knife, in place of the old clumsy crooked one, and his use of the simple carpenter's saw make his name worthy of note. The number of papers he contributed after 1800 were 17. The last one entitled *Some observations tending to demonstrate the dependence of vascular organisation upon physical causes* appeared in the *Reports of the Guy's Hospital of 1840*, the year of his death. In 1804 and 1805 he delivered the Croonian lectures on *Muscular motion* and *Muscles of fishes* respectively.

Carlisle contributed to other fields of knowledge also. For example, in 1800 he collaborated with W. Nicholson in his researches on voltaic electricity and is credited to be the first in observing the decomposition of water by the electric current.

The chief of his published books are *An essay on the disasters of old age, and on the means of prolonging human life* (1817); *Alleged discovery of the use of the spleen* (1829); and *Physiological observations upon glandular structures* (1834).

Carlisle was very early elected on the Council of the College of Surgeons. In 1800 he was elected a fellow of the Royal Society. He was surgeon to George IV, when he was prince regent, who conferred knighthood on him at the first levee he held after he became king.

Carlisle died at his house in Langham Place November 2, 1840.

Brashear, John Alfred (1840-1920)

JOHN ALFRED BRASHEAR, an American instrument maker, was born of a saddler at Brownsville, Pa, November 24, 1840. His maternal grandfather who had a passion for astronomy taught the boy the constellations by the time he was eight; he also presented him in 1850 with a set of Dick's *Works* and paid

for a first view of the heavens through a telescope. About this Brashear wrote later: "Young as I was, the scenery of the moon and the rings of Saturn impressed me deeply". From 1856 to 1881 he was engaged in various pieces of hard work. But the memory of the beauty of the first vision of the heavens persisted so much that he decided to make a telescope for himself as he was too poor to buy one.

He knew nothing about the polishing of lenses, but he brought a glass for a five-inch lens and some books on the grinding of lenses. After toiling in the factory throughout the day Brashear would spend long hours in the night in polishing the glass. This he did for three full years and at last he realised his ambition. From this modest beginning he rose to become the peer of any maker of astronomical and other instruments of precision.

This telescope he made for himself brought him into touch with astronomers and in 1881 he set up independent business as maker of astronomical instruments. It is impossible to estimate accurately the progress in astronomy due to his mechanical genius. To-day his glasses are still in use in most of the observatories of the world.

Brashear's mastery of the art of making a plane surface was marvellous. The speculum metal plates from which the famous Rowland Diffraction Gratings were made required a very accurate surface. The error had to be less than one-fifth of a light wave or one two-hundred-thousandth of an inch. Surfaces of such evenness were produced by Brashear.

Another great contribution to science is the Brashear Method of silvering mirrors, which was of immense use in the design and development of the spectroscope.

His personality even overshadowed his mechanical genius. To literally thousands of people he was known familiarly as "Uncle John". The force that dominated him was a sincere desire to share the beauty of the universe with all mankind. He was one of the three men selected by Andrew Carnegie to draw up plans for the Carnegie Institute of Technology. When Henry C. Frick decided to make his gift of half a million dollars to establish the Frick Educational Commission, he stipulated that Brashear should direct the organisation. Such was his geniality and the confidence that his conduct had induced in others.

Brashear died April 8, 1920.

University Library,
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CONTROL OF LANTANA THROUGH INSECTS*

THE insect enemies of Lantana are numerous, though considerably varying in their relative importance as being destructive agents. The question of the actual extermination of the weed by the use of certain of its more effective insect enemies, is a very old one, having been thoroughly examined long ago principally in Hawaiian islands, in Fiji and Australia. The peculiar geographical positions of Hawaii and Australia and Fiji, apart from other factors, rendered the importation of efficient insect enemies from Mexico and their establishment in those islands very successful, with the result that the spread of lantana there was greatly checked. Complete extermination, of the weed, has, however, never been claimed even in these countries.

In India a serious beginning in the matter of investigating the possibilities of checking the spread of the weed was made in 1916. An exhaustive survey of the indigenous enemies of lantana was made. No definite action was, however taken, presumably because, no particular insect enemy appeared to be of any considerable importance in successfully checking lantana, and the then Imperial Entomologist was thoroughly against the importation of new insects from outside.

In 1921, however, the well-known lantana seed-fly (*Ophiomyia lantanæ* Fg.) was imported

from Hawaii into Mysore and a few flies successfully emerged out; but attempts to breed them in numbers was not successful; later attempts did not meet with any better success either. No further notice was taken and it was believed that the few flies in question soon died out. But in 1932 it was found that the fly could be reared out of ripe lantana berries not only in Mysore but in various parts of India and even Burma, in spite of the fact that the presence of the fly in India had not been made out in the original survey in 1916. Although the incidence of the fly in the different areas was negligible, the very presence of the fly was thought significant. Whether the fly has all along been a native insect of little importance or whether it has really spread out to distant areas in India and Burma from the small original introduction into Mysore in 1921, is a disputable point. In any case, the seed-fly is not likely to be of any value in checking lantana.

The authors of this volume have thoroughly re-examined the question from all aspects and come to the conclusion that, as matters stand at present, there is "little hope of finding an insect in India that is sufficiently manageable to be used as and when required for local destruction of lantana and that a resurvey of insect fauna of lantana in its original home—Mexico—is inescapable, if complete control of the weed is required, in India". It appears improbable that lantana can, at any time be economically and successfully exterminated, unless by means of a suitable insect enemy—perhaps foreign—as in the case of cactus in S. India.

* "Possibilities of Control of Lantana by Indigenous Insect Pests" by C. F. C. Beeson and N. C. Chatterjee, *Indian Forest Records*, Vol. 6, No. 3. (Manager of Publications, Delhi), 1940. Pp. 41-84. Price Re. 1-4-0 or 2s.

SCIENCE NOTES AND NEWS

Excavations at Lauriya Nandangarh.—*Original Manuscripts Discovered.* In the extreme North of the Province of Bihar is Lauriya Nandangarh in the District of Champaran, well-known for the presence of a pillar of the Emperor Asoka, in almost complete preservation marking one of the sites of the pious king's visit from his capital near Patna to the birth-place of Buddha. The name Lauriya strictly applies to the village near the 'laur' or 'pillar', the neighbourhood of which is dotted by a number of mounds, which were some time ago examined by the Archaeological Department.

Nandangarh is the name of a large *garh* or fort, lying at some distance from Lauriya and thickly covered with jungle. This has been regularly excavated by the Department during the last five years and has brought to light a stupendous monument unequalled for its size and the earliest prototype of the architecture of the Burmese and Malayan stupas and the well-known Borabudur monuments in Java. The plan of the monument is a huge square cross with a number of projections in between the arms of the cross, and, as in the great temple at Paharpur, there are also several terraces rising one above the other, although the evidence

of the finds shows Paharpur to be much later in date than the Nandangarh mound.

A Buddhist Monument.—The religious character of the monument at Nandangarh was not clear till the excavations conducted recently brought to light certain finds in the centre of the mound. On the assumption that the monument must have been erected by the Buddhists a shaft was dug in the centre and at a depth of some 36 feet from the top a complete stupa, which was planned as a miniature of the exterior of the monument, was uncovered. This was surrounded on all sides by a low platform at the foot of which was found a copper casket containing a strip of white muslin with fragments of a birch-bark manuscript and small pieces of wood and carnelian beads. As the manuscript had been forced into the casket, it was found impossible to open the individual leaves without breaking. These have been found to contain certain Buddhist texts written in characters of the 3rd-4th century A.D. It appears that the original monument was several centuries earlier than the casket and the manuscript with which it was apparently re-consecrated at a later date.

The present find is, on the whole, the only