

the bone even with the skin; but thought it proper to give him a chance for the use of the whole phalanx.

He complained only for the first day of a pretty sharp pain in the course of the tendon; to which compresses, wrung out of warm brandy, were applied: but his arm was never swelled; there was no *ecchymosis*; nor had he so much fever, as to require bleeding even once. The cure proceeded happily, no symptoms arising from the extracted tendon. At the third dressing the bone was covered; and no other application but dry lint was necessary during the whole time. No exfoliation happened; yet it was twelve weeks before it was intirely cicatrised, owing to the loss of skin: and he seems to enjoy the use of the stump as completely, as if that tendon was not lost.

LXXXIV. *An Account of the late Discoveries of Antiquities at Herculaneum, and of an Earthquake there; in a Letter from Camillo Paderni, Keeper of the Museum at Herculaneum, and F.R.S. to Tho. Hollis, Esq; F.R.S. dated Portici, Feb. 1. 1758.*

Read April 6, 1758. **W**E have been working continually at Herculaneum, Pompeii, and Stabia, since my last of Dec. 16, 1756. The most remarkable discoveries made there are these, which follow.

4 K 2

February

February 1757, was found a small and most beautiful figure of a naked Venus in bronze, the height of which is six Neapolitan inches. She has silver eyes, bracelets of gold on her arms, and chains of the same metal above her feet; and appears in the attitude of loosening one of her sandals. The base is of bronze inlaid with foliage of silver, on one side of which is placed a dolphin.

In July we met with an inscription, about twelve Neapolitan palms in length, which I have here copied.

IMP · CAESAR · VESPASIANVS · AVG · PONTIF · MAX
 TRIB · POT · VII · IMP · XVII · P · P · COS · VII · DESIGN · VIII
 TEMPLVM · MATRIS · DEVM · TERRAE · MOTV · CONLAPSVM · RESTITVIT

After having found a great number of volumes of papyrus in Herculaneum; many pugillaries, styles, and stands with ink in them, as formerly mentioned; at length, in the month of August, upon opening a small box, we also found, to our exceeding great joy, the instrument, with which they used to write their manuscripts. It is made of wood, of an oblong form, but petrified, and broke into two pieces. There is no slit in it, that being unnecessary, as the ancients did not join their letters in the manner we do. but wrote them separate.

In September were discovered eight marble busts, in the form of terms. One of these represents Vitellius, another Archimedes; and both are of the finest workmanship. The following characters, in a black tint, are still legible on the latter, namely, APXIME△ which is all the inscription that now remains.

In October was dug up a curious bust of a young person, who has a helmet on his head, adorned with a civic crown, and cheek-pieces fastened under his chin. Also another very fine bust of a philosopher, with a beard, and short thick hair, having a slight drapery on his left shoulder. Likewise two female busts; one unknown, in a veil; the other Minerva, with a helmet; both of middling workmanship.

In November we met with two busts of philosophers, of excellent workmanship, and, as may be easily perceived, of the same artist; but unfortunately, like many others, without names.

In January was found a small, but most beautiful eagle, in bronze. It hath silver eyes, perches on a *praefericulum*, and holds a fawn between its talons.

In the same month we discovered, at Stabiæ, a term six palms high, on which is a head of Plato, in the finest preservation, and performed in a very masterly manner. Also divers vases, instruments for sacrificing, scales, balances, weights, and other implements for domestic uses, all in bronze.

At length I have finished, with much labour, the examination and arrangement of the scales, balances, and weights, which are very numerous in this museum; and, what is remarkable, many of the former, with all the weights, exactly answer those now in use at Naples. At present I am considering the liquid measures; and also engaged in disposing the paintings in the new apartment allotted for them. These affairs, with my usual province of inspecting the workmen, who are busied in digging; my being obliged to keep an exact register of every thing, that is discovered;

covered ; besides other daily and accidental occurrences ; employ my time so intirely, that I have not a moment's repose, but in my bed.

The square belonging to the palace, in which the museum is deposited, will be finished, and completely ornamented, by Easter. In the center of it I have placed the bronze horse, which was broken in many pieces, and restored by me, as mentioned in my last. In the walls of the colonades are affixed all the inscriptions hitherto discovered : and I shall yet adorn them with altars, curule chairs, and other antiquities proper for such places. The principal entrance into the museum hath been made to correspond with the grand stair-case. On the right side of it stands the consular statue of Marcus Nonius Balbus, the father ; and on the left, that of Marcus Nonius Balbus, the son ; with two inscriptions relating to, and found near them. Upon the stair-case are placed eight antique statues in bronze, on beautiful pedestals of polished marble. In an opening in the center of the right hand colonade is fixed the statue of the wife of the elder Balbus, with the antique inscription belonging to it. At the entrance of the square, a magnificent pair of iron gates, with palisades, are just put up, ornamented with many bronzes, which are gilt ; and on the sides of these gates are two other consular statues of persons unknown.

The whole day and night of the 24th of last month it seemed as if Mount Vesuvius would again have swallowed up this country. On that day it suffered two internal fractures, which intirely changed its appearance within the crater, destroying the little
 mountain,

mountain, that had been forming within it for some years, and was risen above the sides; and throwing up, by violent explosions, immense quantities of stones, lava, ashes, and fire. At night the flames burst out with greater vehemence, the explosions were more frequent and horrible, and our houses shook continually. Many fled to Naples, and the boldest persons trembled. For my own part, I resolved to abide the event here at Portici on account of my family, consisting of eight children, and a very weak and aged mother, whose life must have been lost by a removal in such circumstances, and so rigorous a season. But it pleased God to preserve us; for the mountain having vented itself that night and the succeeding day, is since become calm, and throws out only a few ashes.

LXXXV. *A further Attempt to facilitate the Resolution of Isoperimetrical Problems.*
By Mr. Thomas Simpson, F. R. S.

Read April 13.
1758.

ABOUT three years ago I had the honour to lay before the Royal Society the investigation of a general rule for the resolution of isoperimetrical problems of that kind, wherein one, only, of the two indeterminate quantities enters along with the fluxions, into the equations expressing the conditions of the problem. Under which kind are included the determination of the greatest figures under given bounds, lines of the swiftest descent, solids