walker: but what adds to the wonder is, that it has no back toe. Now without that steady prop to support its steps it must be liable, in speculation, to perpetual vacillations, and seldom able to preserve the true centre of gravity.

The old name of *Himantopus* is taken from Pliny; and, by an awkward metaphor, implies that the legs are as slender and pliant as if cut out of a thong of leather. Neither Willughby nor Ray, in all their curious researches, either at home or abroad, ever saw this bird. Mr. Pennant never met with it in all Great Britain, but observed it often in the cabinets of the curious at Paris. Hasselquist says that it migrates to Egypt in the autumn: and a most accurate observer of nature has assured me that he has found it on the banks of the streams in Andalusia.

Our writers record it to have been found only twice in Great Britain. From all these relations it plainly appears that these long-legged plovers are birds of South Europe, and rarely visit our island; and when they do, are wanderers and stragglers, and impelled to make so distant and northern an excursion from motives or accidents for which we are not able to account. One thing may fairly be deduced, that these birds come over to us from the continent, since nobody can suppose that a species not noticed once in an age, and of such a remarkable make, can constantly breed unobserved in this kingdom.

LETTER L.

TO THE SAME.

DEAR SIR, SELBORNE, April 21, 1780.

THE old Sussex tortoise, that I have mentioned to you so often, is become my property. I dug it out of its winter dormitory in March last, when it was enough

awakened to express its resentments by hissing; and, packing it in a box with earth, carried it eighty miles in post chaises. The rattle and hurry of the journey so perfectly roused it, that, when I turned it out on a border, it walked twice down to the bottom of my garden: however, in the evening, the weather being cold, it buried itself in the loose mould, and continues still concealed.

As it will be under my eye, I shall now have an opportunity of enlarging my observations on its mode of life, and propensities; and perceive already that, towards the time of coming forth, it opens a breathing place in the ground near its head, requiring, I conclude, a freer respiration as it becomes more alive. This creature not only goes under the earth from the middle of November to the middle of April, but sleeps great part of the summer; for it goes to bed in the longest days at four in the afternoon, and often does not stir in the morning till late. Besides, it retires to rest for every shower; and does not move at all in wet days.

When one reflects on the state of this strange being, it is a matter of wonder to find that Providence should bestow such a profusion of days, such a seeming waste of longevity on a reptile that appears to relish it so little as to squander more than two thirds of its existence in a joyless stupor, and be lost to all sensation for months together in the profoundest of slumbers.

While I was writing this letter, a moist and warm afternoon, with the thermometer at 50°, brought forth troops of shell-snails; and, at the same juncture, the tortoise heaved up the mould and put out its head; and the next morning came forth, as it were raised from the dead; and walked about till four in the afternoon. This was a curious coincidence! a very amusing occurrence! to see such a similarity of feelings between the two Φερεοικοι! for so the Greeks call both the shell-snail and the tortoise.

Summer birds are, this cold and backward spring,

unusually late: I have seen but one swallow yet. This conformity with the weather convinces me more and more that they sleep in the winter.

More particulars respecting the old family tortoise.

Because we call this creature an abject reptile, we are too apt to undervalue his abilites, and depreciate his powers of instinct. Yet he is, as Mr. Pope says of his lord,

"Much too wise to walk into a well:"

and has so much discernment as not to fall down a haha; but to stop and withdraw from the brink with the readiest precaution.

Though he loves warm weather, he avoids the hot sun; because his thick shell, when once heated, would, as the poet says of solid armour—"scald with safety." He therefore spends the more sultry hours under the umbrella of a large cabbage leaf, or amidst the waving forests of an asparagus bed.

But as he avoids heat in the summer, so, in the decline of the year, he improves the faint autumnal beams, by getting within the reflection of a fruit-wall: and, though he never has read that planes inclining to the horizon receive a greater share of warmth[1], he inclines his shell, by tilting it against the wall, to collect and admit every feeble ray.

Pitiable seems the condition of this poor embarrassed reptile: to be cased in a suit of ponderous armour, which he cannot lay aside; to be imprisoned, as it were, within his own shell, must preclude, we should suppose, all activity and disposition for enterprise. Yet there is a season of the year (usually the beginning of June) when his exertions are remarkable. He then

[1] Several years ago a book was written entitled "Fruit-walls improved by inclining them to the Horizon:" in which the author has shown, by calculation, that a much greater number of the rays of the sun will fall on such walls than on those which are perpendicular.

walks on tiptoe, and is stirring by five in the morning; and, traversing the garden, examines every wicket and interstice in the fences, through which he will escape if possible; and often has eluded the care of the gardener, and wandered to some distant field. The motives that impel him to undertake these rambles seem to be of the amorous kind: his fancy then becomes intent on sexual attachments, which transport him beyond his usual gravity, and induce him to forget for a time his ordinary solemn deportment[2].

[2] Interesting as the old family tortoise has been rendered by the anecdotes related of him by Gilbert White, his history may be closed by the statement that his life was not prolonged much beyond that of his protector. He died, it is believed, in the spring of 1794; after an existence extended in England to about fifty-four years, the last fourteen of which were spent at Selborne. The thick shell, in which he was coffined while alive, is preserved in the residence of the master who secured for him an enduring existence in the memories of many.

My friend Mr. Bell regards the specimen, which he has had an opportunity of inspecting, as an old and worn shell of the bordered tortoise, *Test. marginata*, Schœpff: and all who are acquainted with the extent and accuracy of his knowledge of the *Testudinata*, must be aware that any one who differs from him on such a subject, is probably in the wrong. Yet at this risk I have ventured to regard the Selborne tortoise as a distinct species. Its shell is less elevated than is usual in the bordered tortoise, once named on that account the bell-shaped: its wrinkles are less strongly marked and less sharp: its subcaudal plates form with each other a much more open angle: and its anterior supra-femoral plate, instead of running to a point towards the back, has an inner margin nearly of equal length with its anterior and its posterior edges. But the general form of the shell of a tortoise, the sculpture of its surface, and the shape of particular plates, are all too variable in many species to warrant the adoption of any or all of these characters as absolutely distinctive; and on them no assured reliance can consequently be placed. More stress may be laid on the animal, and on particular organs or plates attached to its body; and in the case of Gilbert White's tortoise there is a fragment remaining of the skin of one of the thighs which principally induces me to regard it as distinct from the bordered species: for on this fragment of skin there is a large white conical process or spur. No such process was noted by Mr. Bell on the specimen of the bordered tortoise which he had alive, and which is beautifully figured in his splendid work on the *Testudinata*: evidence, it is true, of a negative character only, but becoming positive when taken in conjunction with the distinct statement of M. Bibron, (in the Erpétologie Générale, which he is now publishing in conjunction with M. Dumeril,) that there are no large horny tubercles in that species on the hinder face of the thighs. Although the bordered tortoise is far from

LETTER LI.

TO THE SAME.

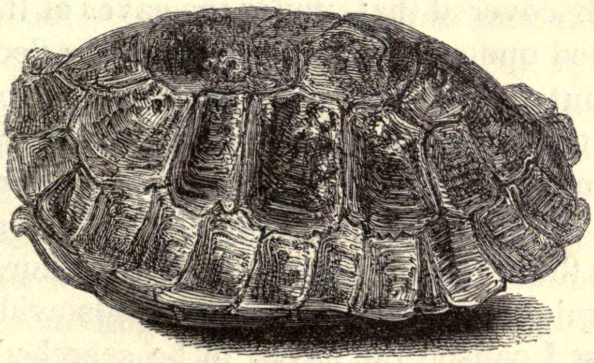
SELBORNE, Sept. 3, 1781.

I HAVE now read your Miscellanies through with much care and satisfaction; and am to return you my best thanks for the honourable mention made in them of me as a naturalist, which I wish I may deserve.

In some former letters I expressed my suspicions that many of the house martins do not depart in the winter far from this village. I therefore determined to make some search about the south-east end of the hill, where I imagined they might slumber out the uncomfortable months of winter. But supposing that the examination would be made to the best advantage in the spring, and observing that no martins had appeared by the 11th of April last; on that day I employed some men to explore

uncommon in Greece, and in other countries on the shores of the Mediterranean basin, I am compelled to refer to authorities for its structure, as I am not aware of the existence in London of a living or preserved specimen of the animal: Mr. Bell has the only two shells of it that are known to me. Mrs. White's, for the loan of which I am indebted to her kindness, may be a third: but it seems to me, with our present knowledge on the subject, that it must be regarded as distinct.

I propose for it the name of *Testudo Whitei*: in English



GILBERT WHITE'S TORTOISE.

E. T. B.

the shrubs and cavities of the suspected spot. The persons took pains, but without any success; however, a remarkable incident occurred in the midst of our pursuit—while the labourers were at work, a house martin, the first that had been seen this year, came down the village in the sight of several people, and went at once into a nest, where it stayed a short time, and then flew over the houses; for some days after, no martins were observed, not till the 16th of April, and then only a pair. Martins in general were remarkably late this year.

LETTER LII.

TO THE SAME.

SELBORNE, Sept. 9, 1781.

I HAVE just met with a circumstance respecting swifts, which furnishes an exception to the whole tenor of my observations ever since I have bestowed any attention on that species of *Hirundines*. Our swifts, in general, withdrew this year about the first day of August, all save one pair, which in two or three days was reduced to a single bird. The perseverance of this individual made me suspect that the strongest of motives, that of an attachment to her young, could alone occasion so late a stay. I watched therefore till the 24th of August, and then discovered that, under the eaves of the church, she attended upon two young, which were fledged, and now put out their white chins from a crevice. These remained till the 27th, looking more alert every day, and seeming to long to be on the wing. After this day they were missing at once; nor could I ever observe them with their dam coursing round the church in the act of learning to fly, as the first broods evidently do. On the 31st I caused the eaves to be searched, but we found in the nest only two callow, dead, stinking swifts,