

his iron pipes and sluices *let* the streams out at low-water, and *kept* the sea out at high-water, Nature, in millions of cases, had partially done the same by running pebble banks across the mouths of small estuaries; that she had thus drained land below high-water mark, and had grown trees thereon. Mr. Kinahan (Valleys, and their Relation to Fissures, Fractures, and Faults, p. 208) replies that oak and most other trees cannot be grown except on drained land, which could never exist naturally below high-water mark." Lest people should take this unsupported *ipse dixit* negative for granted, may I state an imaginary case in exemplification of my theory? We all see the volume of water which passes under our bridges in London during the flood-tide, and most of us would at once allow that, directly as this flow was checked, the volume of water and the height of high-water would decrease. Suppose that at low-water Puck were to replace London-bridge with a bank of pebbles higher than high-water, The flood-tide, instead of flowing, would filter through the pebble-bank. Suppose this filtration and the river water to rise only to half-tide mark, and that the water then filters out with the receding tide. The slopes between the former half-tide and high-water mark would become "drained land," and would grow any trees to any size. Now suppose Puck to shift his pebble-bank to the site of Southwark-bridge. The trees between that and London-bridge would die from being flooded every twelve hours, and their roots would be seen below high-water mark. In nature this results from the sea eroding the line of coast, driving the pebble-bank landward, and exposing the roots which it had covered.

So-called submerged forests may be seen on the south coast opposite the middle of Hastings; at the mouth of Mantell's "Diluvial valley" at Pebblesham; at the west end of St. Leonard's; at Pevensy Level, near Eastbourne; and at Torre Abbey, near Torquay. Roman remains on Dover beach prove no submergence for nearly 2,000 years, while raised beaches prove ancient upheaval.

BROOKWOOD PARK, ALRESFORD.

GEORGE GREENWOOD, Colonel.

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#### ON A NEW LAND-SHELL FROM THE GAULT OF FOLKESTONE.

SIR,—I have the pleasure to announce the discovery of (if I am not in error) the first land-shell of the Upper English Secondary Deposits. The specimen in question is a *Helix*, closely resembling the common garden snail, *H. nemoralis*. It is somewhat depressed without being flat, and is not quite symmetrical in outline, as it is longer one way than the other. Test thin, nearly smooth; sutures well defined, giving the whorls a flat concave appearance; lip, slightly reflected. As the upper portion of the specimen only is exposed, I am unable to say if the shell is umbilicated or not. Formation, Gault; locality, Folkestone.

Should it prove a new species, as I believe it to be, I propose naming it *Helix Woodwardi*.

ALFRED BELL.