Denmark, joining the German ocean to the Baltic, be­ing about three miles over. See Denmark, n⁰ 32. and Elsinore.

SOUNDING, the operation of trying the depth of the ſea, and the nature of the bottom, by means of **a** plummet ſunk from a ſhip to the bottom.

There are two plummets uſed for this purpoſe in na­vigation ; one of which is called the *hand-lead,* weigh­ing about 8 or 9 pounds ; and the other the *deep ſea- lead,* which weighs from 25 to 30 pounds ; and both are ſhaped like the frustum of a cone or pyramid. The former is uſed in ſhallow waters, and the latter at a great diſtance from the ſhore ; particularly on approach­ing the land after a ſea-voyage. Accordingly the lines employed for this purpoſe are called the *deep-ſea lead­line,* and the *hand lead-line.*

The hand lead-line, which is uſually 20 fathoms in length, is marked at every two or three fathoms ; ſo that the depth of the water may be aſcertained either in the day or night. At the depth of two and three fa­thoms, there are marks of black leather ; at 5 fathoms, there is a white rag ; at 7, a red rag ; at 10, black leather; at 13, black leather ; at 15, a white rag; and **at 17,** a red ditto.

Sounding with the hand lead, which is called *heaving the lead* by ſeamen, is generally performed by a man who stands in the main chains to windward. Having the line quite ready to run out without interruption, he holds it nearly at the diſtance of a fathom from the plummet; and having ſwung the latter backwards and forwards three or four times, in order to acquire the greater ve­locity, he ſwings it round his head, and thence as far forward as is neceſſary ; ſo that, by the lead’s linking whilſt the ſhip advances, the line may be almoſt perpen­dicular when it reaches the bottom. The perſon found­ing then proclaims the depth of the water m a kind of ſong reſembling the cries of hawkers in a city. Thus if the mark of five fathoms is cloſe to the surface of the water, he calls, ‘ By the mark five !’ and as there is no mark at four, fix, eight, &c. he eſtimates thoſe num­bers, and calls, ‘ By the dip four,’ &c. If he judges it to be a quarter or an half more than any particular number, he calls, ‘And a quarter five! and a half four,’ &c.. If he conceives the depth to be three quarters more than a particular number, he calls it a quarter leſs than the next : thus, at four fathoms and three fourths he calls ‘ A quarter leſs five !’ and so on.

The deep ſea-lead is marked with two knots at 20 fathoms, three at 30, four at 40, and ſo on to the end. It is alſo marked with a ſingle knot in the middle of each interval, as at 25, 35, 45 fathoms, &c. To uſe this lead more effectually at ſea, or in deep, water on the ſea-coaſt, it is uſual previouſly to bring to the ſhip, in order to retard her courſe : the lead is then thrown as far as poſſible from the ſhip on the line of her drift, ſo that, as it sinks, the ſhip drives more perpendicularly over it. The pilot, feeling the lead ſtrike the bottom, readily diſcovers the depth of the water by the mark on the line neareſt its ſurface. The bottom of the lead being alſo well rubbed over with tallow, retains the diſtin­guiſhing marks of the bottom, as ſhells, ooze, gravel, &c. which naturally adhere to it.

The depth of the water, and the nature of the ground, which is called the *foundings,* are carefully marked in the log-book, as well to determine the diſtance of the place

**from the ſhore, as to correct** the observations **of former** pilots.

SOUP, a ſtrong decoction of fleſh or other ſubſtances.

@@Portable or dry ſoup is a kind of cake formed by boiling the gelatinous parts of animal ſubſtances till the watery parts are evaporated. This ſpecies of ſoup **is** chiefly uſed at ſea, and has been found of great ad­vantage. The following receipt will ſhow how it is prepared.

Of calves feet take 4 ; leg of beef 12 lbs. ; knuckle of veal 3 lbs. ; and leg of mutton 10 lbs. Theſe are to be boiled in a ſuſſicſent quantity of water, and the ſcum taken off as uſual ; after which the ſoup is to be ſeparated from the meat by ſtraining and preſſure. The meat is then to be boiled a ſecond time in other water ; and the two decoctions, being added together·, muſt be left to cool, in order that the ſat may be exactly ſepa­rated. The ſoup muſt then be clarified with five or **fix** whites of eggs, and a ſuſſicſent quantity of common ſalt added. The liquor is then ſtrained through flannel, and evaporated on the water bath to the conſiſtence of a very thick paſte ; alter which it is ſpread rather thin upon a ſmooth ſtone, then cut into cakes, and laſtly dried in a ſtove until it becomes brittle: theſe cakes are kept in well cloſed bottles. The ſame proceſs may be uſed to make a portable ſoup of the fleſh of poultry ; and aromatic herbs may be uſed as a ſeaſoning, if thought proper.

Theſe tablets or cakes may be kept four or five years. When intended to be uſed, the quantity of half an ounce is put into a large glaſs of boiling water, which is to be covered, and ſet upon hot aſhes for **a** quarter of an hour, or until the whole is entirely dissolved. It forms an excellent ſoup, and requires no ad­dition but a ſmall quantity of ſalt.

SOUR-croute. See CroutE.

*SOUR-Gourd,* or *African Calabash-tree.* See Adan- **SONIA.**

SOUTH (Dr Robert), an eminent divine, was the ſon of Mr William South a merchant of London, and was born at Hackney near that city in 1633. He ſtu- died at Weſtminſter ſchool, and afterwards in Chriſt- church college, Oxford. In 1654, he wrote a copy of Latin verſes to congratulate Cromwell upon the peace concluded with the Dutch ; and the next year a Latin poem, intitled *Musica Incantans.* In 1660 he was elect­ed public orator of the univerſity ; and the next year became domeſtic chaplain to Edward earl of Clarendon, lord-high chancellor of England. In 1663 he was inſtalled prebendary of Weſtminſter, admitted to the de­gree of doctor of divinity, and had a ſinecure beſtowed on him in Wales by his patron the earl of Clarendon ; after whoſe retirement into France in 1667 he became chaplain to the duke of York. In 1670 he was inſtalled canon of Chriſt-church in Oxford ; and in 1676 at­tended as chaplain to Laurence Hyde, Eſq; ambaſſador extraordinary to the king of Poland. In 1678 he was preſented to the rectory of Islip in Oxfordſhire ; and in 1680 rebuilt the chancel of that church, as he after­wards did the rectory-houſe belonging to it. After the revolution he took the oath of allegiance to king Wil­liam and queen Mary, though he excuſed himſelf from accepting a great dignity in the church, vacated by the perſonal refuſal of that oath. His health began to de-

@@@[mu] Chaptal's Chemistry.