can be got abreaſt of, at a proper diſtance, *may be disabled, and therefore commanded,* by the numerous freſh ſhips kept to windward for this purpoſe.

In all theſe various methods of attack, the fleet making the attack is ſuppoſed to sail faſter than the other, or at leaſt to come up with it ; and that ſo ſoon as the ſhips are enga­ged, their velocity will conſequently be diminiſhed. That be­ing premiſed, a more proper mode of attack than any of the preceding will perhaps be as follows :

5th, The firſt or headmoſt of the ſhips intended to make the attack is to range alongſide of the enemy, and preſerve that station. The second ſhip is to make all poſſible ſail to luff up and paſs the firſt ſhip, which is now ſuppoſed to be engaged, and get alongſide of the laſt but one of the enemy, which ſhe is to engage. In like manner, the third of the attacking ſhips is to get alongſide of the laſt but two of the enemy, whom ſhe is to engage ; and if it be deemed expedient, the fourth, &c. ſhip may be engaged. It is, however, evident that this method can only be practised when the wind is briſk, and that a calm, in Conſequence of a vigorous cannonade, may render the attack upon more than three or four of the enemy’s ſhips impoſſible.

In all the different attacks upon the rear, it has by ſome been thought a great object: if practicable, to throw a ra­king fire into the rear of an enemy’s line of battle, by ſhips detached for that purpoſe. For if ſhot, as has been ſaid, can take effect at a diſtance of two miles, from this position it will ſurely reach the ſixth ſhip, if the enemy’s line ſhall be formed at two cable’s length aſunder ; and if formed at one cable’s length aſunder, it may reach and may cripple the twelfth ſhip.

We have now given a curſory view of Naval Tactics in its preſent improved ſtate ; and ſhall take leave of the ſubject, with earneſtly recommending to our nautical readers Mr Clerk’s Eſſay, which, if allowance be made for the au­thor’s peculiarity of ſtyle, will ſurely meet the approbation of every officer who wiſhes to ſee the practice of naval war founded on principles of ſcience.

TADCASTER, a town in the West Riding of Yorkſhire, noted for the great plenty of limeſtone dug up near it; and for being one of the first places in which a building was erected for Sunday ſchoals. It is nine miles from York, and 188 from London.

TADMOR. See Palmyra.

TADPOLE, a young frog before it has diſengaged it­ſelf from the membranes that envelope it in its firſt stage of life.

TÆNIA, in zoology ; a genus of animals belonging to the claſs of *vermes,* and order of *intestina.* The body is long, depreſſed, and jointed like a chain, and contains a mouth and viſcera in each joint. According to Gmelin, there are 92 species ; all which inhabit the inteſtines of va­rious animals, particularly of quadrupeds.

Seven ſpecies of tænia are peculiar to man. 1. The *viſceralis,* which is incloſed in a vehicle, broad in the fore-part, and pointed in the hinder part, inhabits the liver, the pla­centa uterina, and the ſack which contains the ſuperfluous fluid of dropſical perſons. 2. The *cellulosae,* which is inclo­ſed in a cartilaginous veſicle, inhabits the cellular ſubſtance of the muſcles ; is about an inch long, half an inch broad, and one-fourth of an inch thick, and is very tenacious of life. 3. The *dentata,* has a pointed head ; the large joints are ſtreaked tranſverſely, and the ſmall joints are all dilated ; the oſculum or opening in the middle of both margins is ſomewhat raised. It is narrow, 10 or 12 feet long, and broad in the fore-parts ; its ovaria are not viſible to the na­ked eye ; and the head underneath reſembles a heart in ſhape. It inhabits the inteſtines. 4. The *lata,* is white, with joints very ſhort and knotty in the middle ; the oſ­culum is ſolitary. It is from 18 to 120 feet long; its joints are ſtreaked tranſverſely ; its ovaria are diſpoſed like the pe­tals of a roſe. 5. The *vulgaris,* or common tape-worm, has two lateral mouths in each joint ; it attaches itſelf ſo firmly to the inteſtines, that it can ſcarcely be removed by the moſt violent medicines ; it is ſlender, and has the appearance of being membranaceous; it is ſomewhat pellucid, from 10 to 16 feet long, and about four and an half lines broad at one end. 6. The *truttæ,* which chiefly inhabits the liver of the trout, but is alſo to be found in the inteſtines of the hu­man ſpecies. 7. The *solium,* has a marginal mouth, one on each joint.

The ſtructure and phyſiology of the tænia is curious, and it may be amuſing as well as inſtructive to conſider it with more attention. As the tænia is often the occaſion of diſeaſe, we may be apt to conſider it not only as uſeleſs, but even as naturally hurtful ; but it is impoſſible to ſuppoſe that the Benevolent Father of mankind created a ſpecies of ani­mals ſolely for the purpoſe of producing diſeaſe. The crea­tion of the tænia is rather a ſtriking inſtance of that rule which the Deity ſeems to have laid down to himſelf, to leave no place deſtitute of living creatures where they could multiply their ſpecies. He has therefore not only covered the earth with animals, but the ſurface of animals with other animals ; and has even peopled ſuch of their internal parts as could ſupply nouriſhment without diſadvantage. Per­haps therefore a certain proportion of theſe animals is con­ducive to health, juſt as a certain proportion of different fluids is ſo, tho’ an excessive increaſe always produces diſeaſe. For there is almoſt every different ſpecies of quadrupeds in a different ſpecies of tænia, which is a full proof that theſe worms have their ſtructure and ſituation determined with as much attention and ſkill as any ſpecies of animals whatever. It is alſo a very curious fact, that thoſe ſpecies of tænia which are peculiar to the human race are alſo peculiar to particular countries. Thus the vulgaris is moſt common in Sweden, the lata in Switzerland and Ruſſia, and the foli­um in Great Britain, Saxony, and Holland.

The tænia appears deſtined to feed upon ſuch juices of animals as are already animalized, and is therefore moſt commonly found in the alimentary canal, and in the up­per part, where there is the greateſt abundance of chyle ; for chyle ſeems to be the natural food of the tænia. As it is thus ſupported by food which is already digeſted, it is deſtitute of the complicated organs of digeſtion. As the tænia solium is moſt frequent in this country, it may be proper to deſcribe it more particularly,

It is from 3 to 30 feet long, ſome ſay 60 feet. It is compoſed of a head, in which is a mouth adapted to drink up fluids, and an apparatus for giving the head a fixed ſituation. The body is compoſed of a great number of distinct pieces articulated together, each joint having an organ whereby it attaches itſelf to the neighbouring part of the inner coat of the inteſtine. The joints neareſt the head are always ſmall, and they become gradually enlarged as they are farther removed from it ; but towards the tail a few of the laſt joints again become diminiſhed in ſize. The extre­mity of the body is terminated by a ſmall ſemicircular joint, which has no opening in it.

The head of this animal is compoſed of the ſame kind of materials as the other parts of its body ; it has a rounded