circumstance, the linings of these cavities have been termed serous membranes. In the neighbourhood of joints, closed cavities of the same description, but of smaller size, are met with, for the obvious purpose of facilitating motion; and here also friction is prevented by a highly lubricating fluid, termed synovia, which is poured out between the surfaces of the membrane lining the cavities.

Membranes being impermeable to fluids, are extensively employed as receptacles for retaining them: forming, in the first place, sacs, or pouches of various kinds for that purpose. The ink-bag of the cuttle-fish, the gall-bladder, and even the stomach itself, are examples of this kind of structure. The coats of these sacs, being very extensible and elastic, readily accommodate themselves to the variable bulk of their contents.

In the second place, we find membranes composing tubes of various descriptions for conducting fluids. Thus, in the higher classes of animals, the whole of the body is traversed by innumerable canals, conveying different kinds of fluids. These canals, when uniting into trunks, or subdividing into branches, are called *Vessels*, (Fig. 26.)



The fluids contained in vessels are never stagnant, but are almost always carried fowards in one constant direction. For preventing the retrograde motions of the fluids passing along these canals, recourse is had to the beautiful contrivance of valves. The inner membrane of the vessel is employed to construct these valves; for which purpose it is extended into a fold having the shape of a crescent; and fixed by its convex edge to the sides of the vessel, while the other edge floats loosely in its cavity. Whenever the fluid is im-

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