

awful scream that to the swan's ear brings more terror than the report of the large duck-gun.

Now is the moment to witness the eagle's powers. He glides through the air like a falling star, and like a flash of lightning comes upon the timorous quarry, which now, in agony and despair, seeks by various manœuvres to elude the grasp of his cruel talons: it mounts, doubles, and, willingly would plunge into the stream, were it not prevented by the eagle, which, long possessed of the knowledge that by such a stratagem the swan might escape him, forces it to remain in the air by attempting to strike it with his talons from beneath. The hope of escape is soon given up by the swan. It has already become much weakened, and its strength fails at the sight of the courage and swiftness of its antagonist. Its last gasp is about to escape, when the ferocious eagle strikes with his talons the under side of its wing, and with unresisted power forces the bird to

fall in a slanting direction upon the nearest shore. It is then, reader, that you may see the cruel spirit of this dreaded enemy of the feathered race, whilst, exulting over his prey, he for the first time breathes at ease. He presses down his powerful feet, and drives his sharp claws deeper than ever into the heart of the dying swan. He shrieks with delight as he feels the last convulsions of his prey, which has now sunk under his unceasing efforts to render death as painfully felt as it can possibly be made.

The female eagle has watched every movement of her mate, and if she did not assist him in capturing the swan, it was not from want of will, but merely because she felt full assurance that the power and courage of her lord were quite sufficient for the deed. She now sails to the spot, where he eagerly awaits her, and when she has arrived, they together turn the breast of the luckless swan upwards, and gorge themselves with gore."



RAFTING ON THE TIGRIS.

IN these days of novels and novelties it may not be unprofitable to describe a novel method of floating, though it is probably the oldest method now in use.

We had occasion to visit Mosul, which is directly opposite the site of the palaces of Sennacherib and Sardanapalus on the Tigris, and determined to raft it down the river from Diarbekir. The pastor of the Mosul church, and the civil head of the Protestant community there, with my servant Yakob and myself making quite a party, we decided to take a raft all to ourselves, and a native brother of Diarbekir was delegated to make a written contract with a builder

of rafts. No foreigner should ever attempt to treat directly with a contractor in this country, because he cannot anticipate the many points to be guarded against at which the contractor will find a door of escape from the conditions under which he is to act, the government also assisting him should the case of non-fulfilment come into the courts. The main points of our contract were these: 1. A raft of 150 new goatskins. 2. The raft to cost 880 piastres, or about 44 dollars, this sum to be paid when the raft was finished. 3. The raft to be ready in four days. 4. Two able-bodied and experienced raftsmen to work the craft through to Mosul.

The fulfilment was a thoroughly Oriental pattern of exactness and honesty, as will appear from the following show-

ing: 1. The raft had just 144 skins, of which only forty-four were new. 2. The very evening of the contract the contractor demanded an *advance* on the payment in order to bind the raftsmen to construct the raft, and threatened to throw up the contract if it were not made. Time being precious, and knowing that the courts would maintain the cause of the poor contractor, we reluctantly paid the money and yielded the one hold we thought we had upon the builders of our craft. 3. The raft was not fully ready until the seventh day. 4. One of our raftsmen, instead of being able-bodied, was a dried-up old man, whose only claim to be associated with his younger and stouter companion was the fact that he was his father-in-law. We were consoled over our disappointment at this failure by the assurance that we should undoubtedly have fared worse had the contract been made directly by myself.

Those of our readers who have made the acquaintance of Xenophon in his *Anabasis*, have been introduced to the "inflated goatskin." This skin is carefully removed from the neck down by a process of inversion without any slitting. It is then put into a vat of tan of pounded sour pomegranate peelings and common salt, where it remains three or four days, after which it is fit to be used. The skin is used inverted, the ends of the tail and legs being tightly corded to prevent the escape of air. The neck serves as a mouth into which air is injected by the raftsmen through a reed tube eighteen inches long, and of the thickness of a cornstalk. The strings prevent the air from escaping from the legs, tail, and neck, and are also used in fastening the skin to the raft frame on the underside. The size of rafts is determined by the number of skins used. Those which are built at Diarbekir do not exceed 200 skins, because if larger they would prove unmanageable on account of the narrowness and swiftness of the stream, and

be certainly wrecked before reaching Jezireh. From Mosul rafts of 300 and 350 skins are commonly used to transmit freight to Bagdad.

The frame of the raft is a rough affair made of poplar poles lashed together at right angles by cords or by green withes. Every third or fourth pole lashed lengthwise of the raft of which the head is determined by the laying of the skins, is heavier than those laid in between in order to give solidity to the frame, the others being more for the purpose of securing the goatskins. The corners of the raft rest squarely upon the end skins, and the beam ends project beyond them. In this way there is not only no danger of the ends piercing the skins, but the projections act as a guard to the skins, preventing the ragged shores from injuring them. When the skins are all made fast to the frame, the surface is covered either with what answers to a cooper's hoop-poles, or with logs of equal length laid side by side, and the raft is ready for use. With rafts of a hundred skins or more designed to convey merchandise down the river, additional care is taken to make a sort of deck raised some two feet by a rail-fence construction of large poplar logs lashed at the crossings and covered in the rough way of the smaller rafts. Upon this the passengers and merchandise are spread around, and are protected from the rush of the waters which sometimes press down upon the skins and their frame till they bury both out of sight.

Small rafts used in ferriage are propelled by small wooden shovel-paddles in the hands of raftsmen. They look like great spoons. The larger rafts require something more elaborate for their management in the strong and tortuous current which bears them down the stream; and for this purpose each raft is furnished with a pair of huge, rough oars. The whole length of the oar is about thirteen feet, the blade

usually being in the proportion of one-fourth the whole length. The socket for the oar is built on it by binding a strip of log of an equal thickness with the poplar log of which the oar is made, about four feet long, and bevelled at one end to the oar-handle. The blade is made of strips of poplar from ten to twelve inches long, from an inch to two inches wide, and about a quarter of an inch in thickness, fastened side by side, to the number of thirty or forty, to two oaken sticks, by a coarse string of goat's hair, the sticks being a little curved to better support the slats against the pressure of the water, as they are on the front surface of the blade. The blade itself is fastened to the oar-pole in a similar manner with the coarse hair string. On each side of the raft, near the front, a strong, upright oaken pin, three feet long, is bound tightly on the rail-fence side and on to the under frame-work down out of sight. It is also braced by a strong interlacing of brush-oak bent in the form of a bow and fastened at the ends. This brace not only stiffens the pivot-pin, but also serves as a rest for the oar.

At the front of the raft, and fastened at the centre, is a stout rope of withes some twenty feet in length, which is used for making the raft fast to the bank when desired, the shore-end being fastened either to a stake or tree, or by stones laid upon it, as suits the nature of the ground or the laziness of the raftsmen. To prevent the raft from suddenly scraping the shallow bottom or striking the ragged banks when making a landing, a long pole with an iron spike at the heavy end is stuck either into the gravelly bed or against the rocky shore. As the sun and wind dry the upper exposed surface of the inflated skins, an instrument for wetting them occa-

sionally to keep them from cracking and leaking is made that is very like a scoop-net, the handle being of bamboo, and the pouch of goatskins. With this the water is scooped up and thrown upon the skins, and during the summer this requires to be done almost constantly.

With rafts, as with larger vessels, collisions sometimes occur, or control of the raft is lost and she is driven upon a sand-bar or against the rough rocks on the shore, and one skin after another bursts from the sudden and too severe pressure brought against them.

As the weather was cold and stormy, it was necessary for us passengers to provide ourselves with some kind of shelter. So, while the raft was being built, we had a little house, 12 by 8 feet and 6 feet high at the ridge, built in skeleton frame of light poplar poles. This we had carefully covered with sheets of felt roughly sewn together and fastened to the flooring at the sides and ends, except one-half of the front end, which was allowed to hang curtain-like, and served as a door. When the raft was ready, six men took the little house upon their shoulders down to the raft, and set it in place at the end of the raft lengthwise with it, leaving a space three feet wide on each side, where many of our goods were deposited.

At last everything is ready. The pastor, the Mosul brother, and myself, with my faithful Yakob and a Protestant brother from the region of Erzroum going to Mosul on business, are on board; all our freight is arranged around the little house, and the time has come to slip the cable. Bidding adieu to the friends who have come down to see us off, the raft is pushed out into the stream, the current takes us in its arms, and we are away.