

TWO PAIRS OF INTERLOCKED DEER HORNS.

These remarkable pairs of interlocked antlers were found by Wade Snyder, who was hunting near Lakeview, Oregon. He presented them to the firm of Whorton & Smith, who had them mounted on a board ornamented with a decorative design, in which the letters W S appear. It seemed from the condition of the carcasses when found, that the deer had not been dead many weeks. The antlers are fine specimens, one set belonging to a deer three years old, and the other to a deer a year older. They are so closely locked, that it is impossible to force them apart without breaking them. The deer must have made frantic efforts to get free before they gave up the struggle and died.

FOLDING CANOES AND JOINTED OARS.

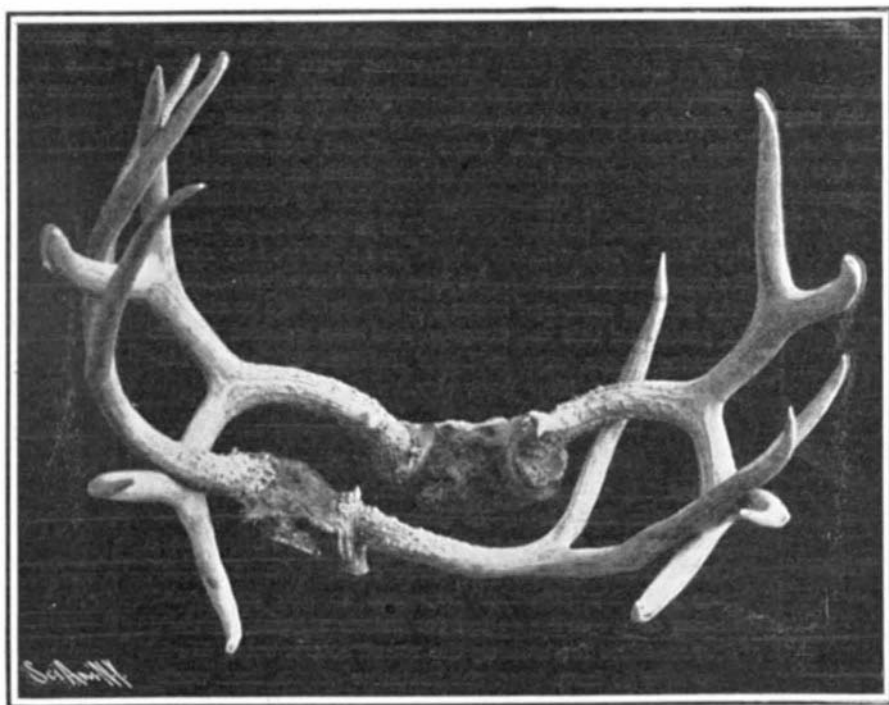
BY EMILE GUARINI.

The last exposition of bicycles and automobiles at Brussels was characterized by numerous exhibits that well showed how great is the progress that has recently been made in the domain of automobilism, properly so called; that is to say, of vehicles with mechanical motors, as well as in the domain of other methods of transportation. In the latter domain, among the other things exhibited, a folding canoe and a jointed oar that permitted of a multiplication of the power and steering of the boat attracted much attention. These were exhibited by the firm of Denis, Doyen & Co., of Brussels.

The canoe is distinguished by its great simplicity. It comprises but two parts, a wooden frame, and sides and ends of impermeable canvas. The frame, which is very light, although very strong, is formed of a combination of jointed levers, that open and close like an accordion. The impermeable canvas is provided in the interior and on each side with four gussets of thick leather in which are inserted the bearing points of the framework, the result of which is to increase the resistance of the canvas at these places, and consequently to prevent any tearing. The canvas and framework are fixed to each other by strong straps. A floor in three parts, resting upon the cross-pieces that connect the levers, forms the bottom of the canoe designed to support the weight of the occupants or baggage, without any direct stress upon the canvas. The seats, which are of cane, are suspended from the levers, and the oars are dismountable at will. This canoe, which is perfectly tight, is, despite its minimum weight, perfectly stable. It can be put together or taken apart in five minutes. In order to take it apart, all that has to be done is to detach the straps, remove the canvas, floor and oars, spread out the canvas, open and fix the frame and place it in the canvas, pass the straps around the cross-pieces of the front and rear corresponding to the frame, put the front board of the bottom of the canoe, then the rear one, and then the center one upon the other parts, and finally dismount the oars and place them on the top of all.

The canoe can always be carried on the back of a man, whatever be its type. That for one person can be carried like a valise. It is propelled by a paddle and can be steered without any trouble owing to its lightness and its slight draft. It can be used in water so shoal that no other canoe could be em-

ployed therein. The canoe for two persons is adapted more particularly for fishing and duck shooting. Owing to its low form, its dark color, and its silent progress, it permits of approaching the game very closely. With this canoe the fisherman, after selecting a favorable



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place, can preserve his position therein as long as he chooses. Should he have "fisherman's luck," he can take his canoe out of water, fold it up, and carry it to any other stream, deemed more favorable. By placing two of these canoes side by side and lashing them together with straps, extreme stability may be obtained.

Another type is specially designed for pleasure excursions, and is adapted for the use of those living

near a river or lake. Finally, still another type is designed for army use, for explorers, etc. This is formed of two parts, and has a prow in front, and a square-cut stern. These two parts are joined end to end by means of a cross-piece the arrangement of which permits of the immediate junction or separation thereof. After the junction has been effected, the canoe forms a unit with a tight joint in the center. Each part is so arranged that it can be instantly united with several others so as to form a foot-bridge.

The seats of each part are arranged for three persons each and two oars, or six persons and four oars for each canoe.

The canoe for one person is 7¼ feet in length, 25 inches in width, and 13 in depth. It weighs 44 pounds, draws 8 inches of water, and is capable of carrying a load of 500 pounds. The canoe for two persons is 7¼ feet in length, 30 inches in width, 20 inches in depth, draws 8 inches of water, weighs 48 pounds, and carries a load of 770 pounds. The canoe with a prow, for two persons, is 9 feet in length, 30 inches in width, 21 inches in depth, weighs 52 pounds, and carries a load of 835 pounds. The type for three persons is 10 feet in length, 36 inches in width, and 20 inches in depth, weighs 46 pounds, and carries a load of 1,180 pounds. Finally, the type for six persons is 11.8 feet in length, 36 inches in width, and 21 inches in depth.

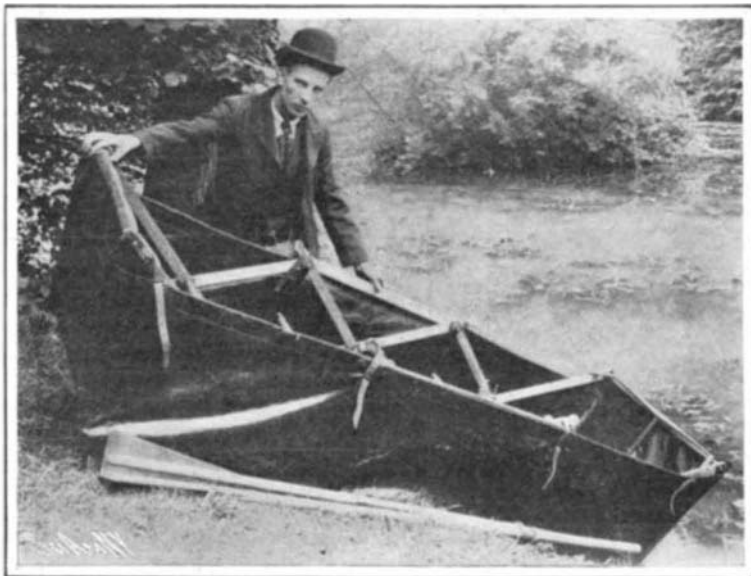
The oar is made in two parts connected by a joint placed at the support of the rowlock. At each part of the oar there is fixed a toothed sector. These sectors mesh with each other and act upon two plates provided with axes around which the sectors revolve. Each of the sectors is provided with a round bush, in one of which the handle of the oar is fitted and in the other the part that dips in the water.

The plates that connect the two parts of the oars are fitted to the support of the rowlocks, which are so fixed to the canoe that it is possible to row with the jointed oars in the same way as with ordinary oars. Through the arrangement of the sectors, it is possible to obtain with the jointed oar a greater amplitude of motions than with a common one of the same length. Since the diameter of the sectors can be varied, it is possible to obtain a multiplication of power, and, consequently, a diminution in the pull necessary for the propulsion of the canoe; and this is a very important consideration. It is possible to make use of ordinary oars, all that is necessary in order to do this being to adjust them in the bushes of the sectors. The apparatus is provided with a support which is screwed to the upper edge of the canoe.

In America the so-called problems of agriculture have been largely those of the mere conquest of land. They are the result of migration, and of the phenomenal development of sister industries. They have resulted from a growing, developing country. They have been largely physical, mechanical, transportational, extraneous—the problems of the engineer and inventor rather than the farmer. The problem has not been to make two blades of grass grow where only one grew before, but how economically to harvest and transport the one blade that has grown.



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