

*Shape.*—Viewed anteriorly the kidney seems to consist of three lobes or masses. First, on the left is a mass very similar in size to the normal left kidney, but rather drawn out inferiorly, and with the hilum in front. Second, on the right is a mass rather smaller than the normal kidney, less regular in shape and also with the hilum in front. Third, there is an irregularly quadrilateral and partially lobulated mass, three inches long by one and three-quarter inches wide and three-quarters of an inch thick, uniting the lower poles of the lateral masses, and passing in front of the aorta and inferior vena cava. At first sight anteriorly there would appear to be three separate kidneys, but that is due to the hilum on each side concealing the connecting bridge of kidney substance. Viewed posteriorly it presents one mass with a very distinct crescentic or horseshoe shape.

*Vessels.*—In cases of horseshoe kidney the vascular supply is usually abundant, and this one is no exception to the rule. There are eight arteries present in this specimen, three pairs from the aorta, and two others arising lower down. The highest pair may be considered to be the normal renal arteries. They are about the usual size, long, and pass obliquely downward and outward to reach the masses on each side, subdividing before entering the renal substance. The second pair, about half the size of the first, arise together from the front of the aorta, half an inch below the inferior mesenteric, and curve outward and downward, to the central mass, where each enters the lower and inner part of the hilum. The third pair, smaller than the second, arise from the sides of the aorta, one inch above its bifurcation, under cover of the connecting lobe. Each passes outward to a notch on the lower border of each side situated at the junction of the connecting lobe with the lateral mass and at this notch enters the lowest part of the corresponding hilum. Of the two remaining arteries one arises from the right common iliac, and runs to the right portion of the central mass, while the other arises from the middle sacral artery and enters the lower border in the median line.

The veins are five in number. Two of large size from the right hilum, and one of large size from the left hilum enter the inferior vena cava, while two small veins from the lower border enter the left common iliac.

*Hilum.*—A separate hilum is present on each side, beginning in the lateral mass, running downward and inward and terminating in a notch at the lower border. It is placed in front of the kidney, and in each there are two ureteral pelves, one from the lateral, one from the central mass. These after diminishing in size unite to form a single ureter.