man throw his body on to the oar as before, when on a fixed seat; the instant he does this his legs instinctively come into play to aupport the body. Then, while he insists upon carrying out his original swing, let him gradually extend his legs, and shift the pivot of action backwards as he swings upon it, taking care that the pivot is never moved too fast to admit of the body doing its full and usual swing. In fact, the latter may be carried much farther back—indeed should be so—than would admit of good recovery on a fixed seat; for the facilities for recovery a sliding seat gives enable a man to go much farther back than on a fixed seat, and yet to gain rather than lose power by so doing.

But on sliding seats the best form of recovery is not quite a converse of the action of the stroke. The hands follow the same rule as on a fixed seat, viz., a quick shoot out, and the rest of the recovery performed with rigid arms; but with regard to the relations between slide and swing, these do not repeat conversely the action of the stroke. In the latter the crucial was that slide should not run away fromswing, but in recovery it may with advantage do so. The body should not wait for the slide to complete its task, and then follow, but for all that it may allow the slide to hurry in advance of it, following meantime at a reasonable pace, and completing the swing after the slide forward has been completed.

The recovery of the slide itself should be performed by contracting all the flexor muscles of the legs and feet simultaneously —the ankle an knee should work together. The mere bending of the knee, so long as the foot is keep flat to the stretcher, will suffice to bend the ankle-jont, even if the muscles that work the latter are passive, but the angle should be active, and not merely passive, and should take its own share in the work of the slide.

The length of the stretcher should be s. short as can be used while allowing the hands to clear the knees as they pass each other during the stroke. The hands, by being shot out quickly on the recovery, get in front of the knees before the latter have come to an acute bend, and at the moment that the water is caught at the commencement of the stroke the knees should be actually higher than the hands by some three inches. The legs should never be straight at the end of the stroke ; there should always be some bend left at the knees, not only to afford proper support to the body at the end of the swing, but also to facilitate the recovery ; for when the knees are straight the mechanical power of the flexor muscles is at a 'dead point,' and the

extra exertion of getting the legs underway is not compensated for by any work gained by the extra length of slide to the point when the legs are thus straightened. Whereas, if the legs are slightly bent at the commencement of the recovery the muscles work to greater advantage, and the flexion is completed with greater ease.

The ordinary oar-handle will, with the extra reach obtained by sliding, be found to lie too far inside the body at the full reach forward and backward by some two inches. If the oar is thus too short, the oarsman cannot swing well back, and yet keep his inside hand both on the car and yet flat to his The oars, ribs and doing its proper work. therefore, must be lengthened inboard to allow for the extra reach, and with that addition a certain proportionate length outboard must be added, else the oar will come too easily through the water. Though a nine-inch slide can be properly used in good practice, it by no means follows that a trainer should feel himself bound to try to work a raw crew up to the use of this length for their first race of this sort. All depends upon the same available, and the It is better to proficiency of his pupils. make sure of mastering a certain amounf of slide than to risk spoiling all by attempting too much. More pace will be gained by a six-inch slide, combined with good swing of body, than by a niue-inch with swing abandoned ; and the former will not sow seeds of future bad rowing, as will the latter.

The above theories and explanations are the opinions of W. B. Woodgate, who in England is looked upon as an authority concerning these matters. Some of our American scullers believe that more speed can be got from a four-inch slide than from a six or nine-inch slide.

In reference to this latest improvement in connection with the art of rowing. Dr. G. M. Humphrey, of Cambridge University, Eng., writes as follows : 'The stroke is lengthened by the straightening of the knees. and this is effected by the "increased action " of the muscles, which, in the ordinary mode of rowing, are not used in proportion to other muscles; that is to say, the stroke is lengthened, the pulling force increased, and the muscular action more equal-lized in different parts of the body. This lized in different parts of the body. advantage may be, to some extent, counter-balanced by the lessened fixity of the point d'appue of the trunk muscles consequent on the increased movement in the To what extent joints of the lower limbs. this would operate it is difficult to tell. Indeed, the question arises out of joints and muscular action involves so many complex

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