considerations of these distinctions must be self-evident to all who desire to study this matter correctly.

In pursuance of our subject we had pointed out that the operation of direct force—from without inwards—might produce *impacted fracture* of the neck of the thigh-bone—this portion of the thigh-bone operating as a wedge, and splitting up the upper part of the shaft of the bone among the trochanters. That a similar application of force might cause fracture, in which the bone was *not impacted*—was free to the operation and contraction of the muscles of the hip. Or, that a like accident might cause fracture of the neck of the thigh-bone, in which the trochanter minor might be included in the lesion, when it would produce a variety in the *symptoms* serving for its diagnosis. It now remains for us to proceed with the consideration of that same force when it has split up the upper portion of the shaft of femur, and has implicated the trochanter major—either separately—or in conjunction with the condition we have already indicated.

Further, if complicated with the fracture of the neck of the thigh-bone and trochanter minor, we have a separation of the trochanter major, by the wedge-like power of the fractured neck, which has been sufficient completely to break up the superior extremity of the shaft of the bone, we shall again expect a modification of the symptoms indicating the nature of the accident. The separation of the trochanter major, will render powerless the influence of many of those muscles which elevate the shaft of the bone upon the pelvis, or serve to rotate the thigh-bone outwards—did it so happen that the trochanter minor still remained attached to the shaft, as soon as the femur was elevated upon the hip, the action of the psoas magnus and iliacus internus muscles, would flex the thigh upon the body; but as this condition is seldom present when the injury to the shaft has been sufficient to separate the trochanter major, this symptom is not commonly present. In the variety of accidents we are now indicating, the glutei, the pectinalis and other muscles arising from the pelvis, inserted into the shaft of the thigh-bone, below the seat of the injury—then continue to elevate the femur, and to cause a shortening of the limb. In this variety of accident, however, the rotation of the toe outwards must cease to be a diagnostic mark of fracture of the neck of the thigh-bone, since all the muscles which especially perform this movement and cause the symptom, have lost their power—the pyriformis, the gemelli, the obturator externus and internus, as well as the quadratus femoris, which are