true, but it seems to us to want at least some explanation. The student's objection is that if we are at liberty to consider the normal action at the extreme point Q of the element as coincident with the normal action at P, we might also consider the direction of the tangential actions at the two points as ultimately coincident, which he finds is not the case ; and it requires a clearer insight into the doctrine of infinitesimals than the student will generally possess to see that the error in taking the directions of the normal actions as coincident will be of a higher order than that in treating the tangential actions in a similar manner, and that therefore in taking the limits the former error will disappear. Perhaps the best mode of remedying this defect would be the addition of a chapter on infinitesimals when a new edition of the Differential Calculus is called for. We have not examined the book before us with sufficient care to be able to say much as to the accuracy of the printing. One strange blunder, arising we presume from the printer, we may point out for the benef.' of any of our readers taking up the book. It is at the end of article (186) where he is finding the approximate expression for the tension at the lowest point of the catenary, where in subtracting two expansions the first term of the difference is omitted. (The left hand side of each of the two last equations should be  $\sqrt{k^2} = h^0 - k$ ). There is also, a few lines above, a singularly careless mistake, the points of support being described as nearly in the same straight line, instead of in the same horizontal line.

Before we conclude, there is one point to which we should wish to call the attention of our mathematical readers. In the chapter on the Composition of Forces, Mr. Todhunter gives us first Duchavla's proof of the Parallelogram of Forces, (we wish he had substituted Duhamel's far more elegant demonstration) and then adds Poisson's proof which does not assume the principle of the transmissibility of force. In passing we may remark that we never could see that this was any recommendation of this class of proofs. Writers are accustomed to say that proofs such as Duchayla's will not apply to the case of forces acting on a particle of fluid, or that the proof is imperfect because the proposition would be true even if the transmissibility of force did not hold, by which if they mean anything they must mean if no such thing as a rigid body ever existed. Such objections seem to us about equivalent to saying that a brick house cannot be built by means of a wooden scaffold. The rigid connections introduced into such proofs are purely imaginary, and when the result is established it matters not the least of what body the particle