



Fig. 1 Law of the wall.

factor may explain the inconsistencies noted in earlier work. Thus future workers must specify full details of the surfaces used. Also many more data are required before a definitive law-of-the wall can be established.

### References

- <sup>1</sup>Schetz, J. A. and Nerney, B., "Turbulent Boundary Layer with Injection and Surface Roughness," *AIAA Journal*, Vol. 15, Sept. 1977, pp. 1288-1293.
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## Reply by Authors to L.C. Squire

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THE authors wish to thank Prof. Squire for his thoughtful comments on our work.<sup>1</sup> We should like to offer some brief observations in reply.

First, it is not our contention that all previous, indirectly determined wall friction data with injection should be completely disregarded. We do contend, however, that directly measured values are much to be preferred.

Second, the method of extrapolating shear values measured with a hot-wire out in the boundary layer to the wall has proved unreliable for solid wall flows in the past. We do not believe that this method offers a useful alternative to the direct measurement approach.

Third, we do hope that our work concerning roughness effects of porous surfaces will indeed cause future workers to carefully specify the surface under study. We agree that more data are needed and urge that surfaces made of practical porous materials receive attention.

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