

they do not (apparently) conform to
our standard of mechanical perfection,
& so nothing ever actually ^{or could return} returns to
its original state when it has once
departed from it. - I don't know if
I have made myself clear now. - I
think there is some truth in what I
mean, tho' I am afraid it is awkwardly
put. - I wish so much we ever
met, so that I might talk on some
of these things with you; but I am
afraid that is likely to remain a wish!

Yours very sincerely
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Dear Professor Fitzgerald

Very many thanks for your letter.
I quite see the point about the initial
conditions, & it seems strange that
Prof. Ostwald even tho' he is a chemist
should have overlooked it. - But indeed
he appears to assume throughout his
argument not that a mechanical
process can be reversible, but that it
always must reverse which is a
very different thing. -

In speaking of a "perfect" me-
chanical process, I meant merely
perfect

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only according to the conception we have formed of what such a process should be if it conformed exactly to our rules for it, - i.e. so accurately reversible that it would return to its original state without even the ~~smallest~~ ^{supposing it to reverse at all...} deviations. Of course we never find this in nature any more than we find a "perfect" solid. - It is an idea we help ourselves by; but then since we do not find it in nature perhaps our idea of what a perfect mechanical process would be is after all wrong tho' we may never know enough to correct it, - & so our mechanical theory will

never be quite able to embrace all the facts. - That is really what I meant. The true test of perfection in such a matter would be rather what we actually do find in nature, than what we think we ought to find. In a universe which really conformed to our conception of mechanical perfection there would be no room, so far as I can see for the principle of evolution, yet there is abundant evidence that such a principle exists, & I always think that the life-history of the universe which we know, is one of evolution tho' there are such tremendous gaps in our knowledge of it. - Now are the mechanical processes which we really do see in nature are not incompatible with evolution just for the very reason that