

physiology and agriculture in the school of Liebig, and the first chapters of meteorology, seemed to favour the idea that the elements and forces of nature were engaged in cyclic movements which return again and again in the same fashion. To the same cyclical view the doctrine of the fixity of species, as well as that of the repetition of various creations, lent further support; hence it continued up to the middle of our century<sup>1</sup> to be fre-

<sup>1</sup> In Germany Moleschott's 'Kreislauf des Lebens,' a popular exposition of the conceptions developed in the second quarter of the century through chemistry and embryology, represented adequately the cyclic conception of life and development in a catching phrase. Much later we find — *inter multa alia* — in Michael Foster's 'Text-book of Physiology' a concise description of the process in nature which has always served as a type for the cyclic conception: "When the animal kingdom is surveyed from a broad standpoint it becomes obvious that the ovum, or its correlative the spermatozoon, is the goal of an individual existence; that life is a cycle beginning in an ovum and coming round to an ovum again. . . . The animal body is in reality a vehicle for ova; and after the life of the parent has become potentially renewed in the offspring, the body remains as a cast-off envelope whose future is but to die." Another example may be found in Mohr's 'Geschichte der Erde,' where the circulation of different elements in nature is considered. The conception of periodic cycles has found poetical expression in Rückert's beautiful poem, "Chidher," which is evidently the poetical rendering of an Arabian legend quoted by Lyell in ('Principles,' vol. i. p. 31):—

"Chidher, the ever youthful, spake:  
I passed a city on my way,  
A man in a garden fruit did break,  
I asked how long the town here lay?  
He spoke, and broke on as before,  
'The town stands ever on this shore,  
And will thus stand for evermore.'

And when five hundred years were gone  
I came the same road as anon,  
Then not a mark of the town I met.  
A shepherd on the flute did play,  
The cattle leaf and foliage ate.  
I asked how long is the town away?  
He spake, and piped on as before,  
'One plant is green when the other's o'er,  
This is my pasture for evermore.'

And when five hundred years were gone  
I came the same road as anon,  
Then did I find with waves a lake,  
A man the net cast in the bay,  
And when he paused from his heavy take,  
I asked since when the lake here lay?  
He spake, and laughed my question o'er,  
'As long as the waves break as of yore  
One fishes and fishes on this shore.'

And when five hundred years were gone  
I came the same way as anon.  
A wooded place I then did see,  
And a hermit in a cell did stay;  
He felled with an axe a mighty tree.  
I asked since when the wood here lay?  
He spake: 'The wood's a shelter for ever-  
more,  
I ever lived upon this floor,  
And the trees will grow on as before.'

And when five hundred years were gone  
I came the same way as anon,  
But then I found a city filled  
With markets' clamour shrill and gay.  
I asked how long is the city built,  
Where's wood and sea and shepherd's play?  
They pondered not my question o'er  
But cried: 'So was it long before,  
And will go on for evermore.'  
And when five hundred years are gone  
I'll go the same way as anon."