

Karl Marx, *Capital*—Chapter 15

(Machinery and Large-Scale Industry), footnote #4:

“Spinning machines had already been used before this time, although very imperfect ones, and Italy was probably the country where they first appeared. A critical history of technology would show how little any of the inventions of the eighteenth century are the work of a single individual. As yet such a book does not exist. Darwin has directed attention to the history of natural technology, i.e. the formation of the organs of plants and animals, which serve as the instruments of production for sustaining their life. Does not the history of the productive organs of man in society, of organs that are the material basis of every particular organization of society, deserve equal attention? And would not such a history be easier to compile, since, as Vico says, human history differs from natural history in that we have made the former, but not the latter? Technology reveals the active relation of man to nature, the direct process of the production of his life, and thereby it also lays bare the process of the production of the social relations of his life, and of the mental conceptions that flow from those relations. Even a history of religion that is written in abstraction from this material basis is uncritical. It is, in reality, much easier to discover by analysis the earthly kernel of the misty creations of religion than to do the opposite, i.e. to develop from the actual, given relations of life the forms in which these have been apotheosized. The latter method is the only materialist, and therefore the only scientific one. The weaknesses of the abstract materialism of natural science, a materialism which excludes the historical process, are immediately evident from the abstract and ideological conceptions expressed by its spokesmen whenever they venture beyond the bounds of their own specialty” (493-494)