

Invention

“To sum up: the more productive capital grows, the more it extends the division of labour and the application of machinery; the more the division of labour and the application of machinery extend, the more does competition extend among the workers, the more do their wages shrink together.

“In addition, the working class is also recruited from the higher strata of society; a mass of small business men and of people living upon the interest of their capitals is precipitated into the ranks of the working class, and they will have nothing else to do than to stretch out their arms alongside of the arms of the workers. Thus the forest of outstretched arms, begging for work, grows ever thicker, while the arms themselves grow ever leaner.” – Marx, *Wage Labour and Capital*, See: <https://www.marxists.org/archive/marx/works/1847/wage-labour/ch09.htm>

“Invention then becomes a business, and the application of science to direct production itself becomes a prospect which determines and solicits it. But this is not the road along which machinery, by and large, arose, and even less the road on which it progresses in detail. This road is, rather, dissection [*Analyse*] – through the division of labour, which gradually transforms the workers’ operations into more and more mechanical ones, so that at a certain point a mechanism can step into their places. (*See under economy of power.*) Thus, the specific mode of working here appears directly as becoming transferred from the worker to capital in the form of the machine, and his own labour capacity devalued thereby. Hence the workers’ struggle against machinery. What was the living worker’s activity becomes the activity of the machine....

“depends rather on the general state of science and on the progress of technology, or the application of this science to production. (The development of this science, especially natural science, and all others with the latter, is itself in turn related to the development of material production.)...

“Labour no longer appears so much to be included within the production process; rather, the human being comes to relate more as watchman and regulator to the production process itself. (What holds for machinery holds likewise for the combination of human activities and the development of human intercourse.) No longer does the worker insert a modified natural thing [*Naturgegenstand*] as middle link between the object [*Objekt*] and himself; rather, he inserts the process of nature, transformed into an industrial process, as a means between himself and inorganic nature, mastering it. He steps to the side of the production process instead of being its chief actor.” – Marx, *Grundrisse*, Penguin, 1973, pp.704-705. Also at: <https://www.marxists.org/archive/marx/works/1857/grundrisse/ch14.htm>