is indeed impossible, that it can be in any body ; it is a sen­sation, and a sensation can be in a sentient thing only.”@@1 Again, “ I can think of the smell of a rose when I do not smell it ; and it is possible that when I think of it, there is no rose any where existing ; but, when I smell it, I am necessarily determined to believe that the sensation really exists. This is common to all sensations, that, as they can­not exist but in being perceived, so they cannot be per­ceived but they must exist.”@@® But, continues this acute metaphysician, “ a smell is nothing else than a sensation. It is a feeling, which may be agreeable or disagreeable ; which may, as some think, be excited by various combina­tions of elements ; but which, since it is a feeling, cannot be those elements which are said to cause it, and cannot exist where there is no creature to perceive it. What is to be understood, in philosophical strictness, by the perfumes of the desert? We can excuse the poet when he makes the ocean smile,@@’ the winds dance,@@4 and the flowers re­spire;@@5 or even were he to perfume the desert. But the philosopher is no such magician, and had better not wander through the regions of fancy in search of sensations where there is no sentient.” And is it then true that the word smell means only a sensation? A sensation is no more than an effect ; it is a transient modification of the mind, which the mind itself can never produce. It must then have some cause which is external to the mind. Now, it is to this cause, and not to the sensation, that the name smell is most frequently applied in all languages ; and it is this cause which Dr. Reid supposes capable of existing in the deserts of Arabia, where there is no sentient being to perceive it. But let us hear himself. *“ We* have considered smell as signifying a sensation, feeling, or impression upon the mind ; and in this sense it can only be in a mind or sentient being ; but it is evident that mankind give the name of smell much more frequently to something which they conceive to be ex­ternal, and to be a quality of body ; they understand by it something which does not at all infer a mind, and have not the least difficulty in conceiving the air perfumed with aro­matic odours in the deserts of Arabia, or some uninhabited island where the human foot never trod.”@@6 “ The faculty of smelling is something very different from the actual sen­sation of smelling ; for the faculty may remain when we have no sensation. And the mind is no less different from the faculty, for it continues the same individual being when the faculty is lost. What is smell in the rose ? It is a qua­lity or virtue of the rose, or of something proceeding from it, which we perceive by the sense of smelling ; and this is all we know of the matter. But what is smelling? It is an act of the mind, but is never imagined to be a quality of the mind. Again, the sensation of smelling is conceived to infer necessarily a mind or sentient being ; but smell in the rose infers no such thing. We say, this body smells sweet, and that stinks ; but we do not say, this mind smells sweet, and that stinks; therefore smell in the rose, and the sensation which it causes, are not conceived, even by the vulgar, to be things of the same kind, although they have the same name.”@@7

There are some other remarks on Dr. Reid’s opinion, in the work upon which we have been commenting, which we shall pass by ; we may however notice the author’s con­cluding argument. After mentioning some examples, he observes, “ Now, in these instances, we see men and ani­mals, that must have perception of smell, if I may be per- mitte'd to say so, altogether different from each other. Is not smell sensation when the spaniel finds sport in the field tor his master ; when the shark pursues through the ocean its expected victim ; and when the camel conducts the thirsty wanderer to a fountain of fresh water, across the burning sands of the Arabian desert ? If no animal had the sensation of smell, there would be no odour ; for aroma and oils may be thought to be material compositions, but are neither agreeable nor disagreeable feelings.” If men and animals differ in their perceptions of smell, and, no doubt, difference of organization will cause them to do so, the con­clusion should not be, we think, that smell is merely sensa­tion, but that there is actually something external which is the cause of their sensations, and about which they differ. A rose put to the nostrils of a man, and then to those of a dog, may excite very different sensations; but we cannot think that the peculiarity of the rose, which excites those different sensations, varies by thus changing the position of the rose. If at table one person mistakes mutton for beef, and another thinks that it is venison, the conclusion may be, that it is neither venison nor beef ; but no man in his senses, can conclude that there is no meat at the table. But, “is not smell sensation when the spaniel finds sport in the field ?” There is sensation no doubt ; but we may be permitted to ask, what would become of the spaniel’s sensation of smell and of his master’s sport, were there no game in the field ? What of the shark’s sensation of smell and pursuit, were there no victim in the ocean ? and what of the camel and the thirsty wanderer, were there no fountain of fresh water in the Arabian desert ? ‘The smell of a rose signifies two things,” says Dr. Reid; “first, a sensation which can have no existence but when it is perceived, and can only be in a sentient being or mind ; secondly, it signifies some power, quality, or virtue in the rose, or in effluvia proceeding from it, which hath a permanent existence independent of the mind, and which, by the constitution of nature, produces the sensation in us. By the original constitution of our nature, we are both led to believe that there is a permanent cause of the sensation, and prompted to seek after it ; and experience determines us to place it in the rose. The names of all smells, tastes, sounds, as well as heat and cold, have a like ambiguity in all languages ; but it deserves our attention, that these names are but rarely, in common language, used to signify the sen­sations ; for the most part, they signify the external qualities which are indicated by the sensations.”@@8 We have been in­duced thus to discuss this topic at some length, because we regretted to see Dr. Reid’s opinion and reasoning misrepre­sented ; and we shall now conclude, not as this modern Berkleian does, “ that if no animal had the sensation of smell, there would be no odour,” but, that if there were no odour or external cause of smell, no animal would have this sensation.

SMELTING Iron by Hot-Blast. Since the article on the Manufacture or Irον was published in the usual or­der of the progress of this work, certain changes have been introduced in the process of making iron, of so exten­sive and important a character, that we cannot consider them in any other light than as effecting an entire re­volution in those branches of industry and of commerce connected with the manufacture and application of that most valuable of metals. The change has been compara­tively unnoticed, extending itself during the last ten years, from the little spot in a remote part of this island whence it took its origin, and has now found its way over a great part of the old world, and been adopted extensively in the new. Wherever it has found its way, wealth and pros­perity have attended it, poverty and sterility have fled be­fore it ; and there have been opened up vast stores of mineral wealth to assist in the advancement of civilization and in­dustry, which our former impotence and want of skill had marked with the stigma of utter unproductiveness. It is therefore necessary that we give in this article, as supple­mentary to our former treatise, an account of the new pro­cess, now well known over the whole manufacturing world as the *hot-blast process* for smelting iron.

@@@1 Reid's Inquiry, ch. ii. sect. 2.

@@@’ Reid's Inquiry, chap. ii. sect. 3.

@@@3 Milton

@@@' Cowley.

@@@\* Thomson. .

@@@\* Inquiry, chap ii. sect. 8

@@@! Inquiry, chap. ii. sect. 9.

@@@\* Inquiry, ch. ii. sect. 9.