XLV. *Tranſlation of a Letter from M.* de Stehlin, *Counſellor of State to her Imperial Majeſty of* Ruſſia, *to Dr.* Maty, *with a Specimen of native Iron.*

SIR,

Redde, June 9, 1774.

AS a teſtimony of my attachment to the Royal Society, and as the firſt tribute I owe her, I have the honour to tranſmit herewith two real novelties, which I think worthy of her notice.

The firſt is, a *new map, and my preliminary deſcription, of a new Archipelago in the North*, diſcovered a few years ago by the Ruſſians, in the N.E. beyond Kamtſhatka.

The ſecond is *a piece of raw and native iron*; of which Mr. PALLAS, one of our academicians, who has theſe five years been employed in making reſearches in natural hiſtory, in the provinces of the Ruſſian empire, has diſcovered laſt year a hillock or maſs, weighing fifty puds (the pud conſiſting of forty Ruſſian pounds) in Siberia, in the mountains called NEMIR, between the rivulets Ubec and Siſim, which fall into the river JENISEI, ſcarce one hundred fathoms from a rich mine of loadſtone or iron (a).

(a) See the article in the Peterſburg Gazette.

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You know, SIR, that the exiſtence of raw or native iron has hitherto been doubted; but I ſhould almoſt think, that this diſcovery determines the queſtion; eſpecially if it is conſidered, that in the whole diſtrict where this maſs has been found, there is not the leaſt trace extant of any ancient forge, nor any place that might leave room to ſuſpect that there had been, in former times, any works of iron ore, which had been melted, and afterwards abandoned to that maſs.

Should any doubt remain concerning the exiſtence of the native iron, and the authenticity of this diſcovery, I ſhould rather ſuppoſe that, many ages ago, there might have been a *Volcano*, which by melting the iron ore had formed the above maſs, to which might afterwards have been joined the little hyacinthine ſpars and other ſtones which are now mixed with it

Tranſlation of an Article in the Peterſburg Gazette of Sept. 6, 1773.

" The academy expects from Siberia a black maſs weighing about forty puds (*b*), of raw or native, ſoft and flexible iron, which the academician PALLAS has diſcovered during his reſidence in the neighbourhood of the river JENISEI. This very remarkable and huge lump is of a ſpungy texture, of the moſt perfect and malleable iron, whoſe cavities are cloſely filled with ſmall poliſhed pieces of hyacinthine ſpar, ſome round, ſome with flat ſurfaces, and all of the colour of tranſparent amber.

(*b*) The maſs, in its preſent ſtate, weighs 152 Ruſſian pounds.

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The maſs (of which ſome conſiderable pieces have already been received), is ruſty only on the ſurface; but the interior has been preſerved by a kind of black varniſh that is ſpread all over the iron, which is of an irregular form blunted at the corners.

This iron may be bent and hammered when cold, and, when moderately heated, may be ſhaped into nails and other tools; but, in a violent heat, and eſpecially if in order to ſeparate it from the ſparry particles it is thrown into ſmelting ovens, it becomes brittle, granulated, and will not join again in the forge.

This maſs was found lying on the ſurface, at the top of a high woody eminence, not far from the mountains called, by the Tartars, NEMIR, between the two rivulets Ubei and Siſim, which fall from the right into the JENISEI, a little below Abakanſkoi Oſtrog, and ſcarce 100 fathom from a rich mine of hard ore of loadſtone.

The appearance and nature of this maſs, and the qualities of the iron, of which it chiefly conſiſts, are ſo deciſive, that it cannot be doubted but that it has been thus produced by Nature; and if ſo, the exiſtence of native iron, which has hitherto been queſtioned, is eſtabliſhed beyond all contradiction; eſpecially if it be conſidered, that no trace of any old iron work, of which there are many in the Siberian mountains, is to be met with in the deſart where the maſs was found; and that the mine above-mentioned was not opened before the year 1752, when the miners, who were there employed, firſt diſcovered this maſs of iron: ſince which time no further notice had been taken of it.

XLVI. *Of*