

manner be subjected to such treatment reminds us of the mathematical calculations in Herbart's Psychology. It has been maintained that what is good both in Herbart's Psychology and in Thünen's Economics could probably have been arrived at without the abstract and frequently repellent formalism of their principal works.¹ In addition to making this general use of the mathematical method, Thünen has immortalised himself by attempting to give an algebraical formula for what he terms the "natural wages of labour."

In order to arrive at this he eliminates one factor, that of rent, by moving the supposed farm in his isolated state to such a distance from the market, which is situated in the centre, that the carriage of the produce would be equal to the rent of land situated in the im-

¹ A similar criticism has been levelled by Ingram against two writers, both of much originality. The first is Augustin Cournot (mentioned already, *supra*, vol. iii. p. 385 n.), "who with competent knowledge of both subjects, endeavoured to apply mathematics to the treatment of economic questions. His treatise entitled 'Recherches sur les Principes Mathématiques de la Théorie des Richesses' was published in 1838. . . . Notwithstanding Cournot's just reputation as a writer on mathematics, the 'Recherches' made little impression. . . . His pages abound in symbols representing unknown functions, the form of the function being left to be ascertained by observation of facts. . . . Cournot published in 1863, with the title 'Principes de la Théorie des Richesses,' a work of great ability," in which "the mathematical method is abandoned. . . . The author admits

that the public has always shown a repugnance to the use of mathematical symbols in economic discussion, and . . . he acknowledges that a grave danger attends their use. . . . His practical conclusion is that mathematical processes should be employed only with great precaution, or even not employed at all, if the public judgment is against them, for this judgment, he says, has its secret reasons almost always more sure than those which determine the opinions of individuals" (*loc. cit.*, p. 180). The other writer is W. Stanley Jevons (1835-1882). "The application of mathematics in the higher sense to economics must necessarily fail, and we do not think that it succeeded in Jevons' hands . . . and the expectation of being able by means of it to subject economic doctrine to a mathematical method will be found illusory" (p. 233).