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view of the Othoman Literature of the Nineteenth Century, by Ritter Joseph Von Hammer, published in the Athe­naeum, 1835 ; the Present State of the Turkish Empire, by Marshal Marmont, duke of Ragusa, &c. London, 1839 ; Correspondence relative to the Continuance of Monopolies in the Dominions of Turkey, presented to the House of Commons, 1840; Tables of the Revenue, Population, Com­merce, &c. of the United Kingdom, part viii., 1838, from official returns, printed 1840; Weimar Almanach für das Jahr 1840 ; and many others. (c. h.)

TURKI, a town of Hindustan, in the province of North Bahar, pleasantly situated on the Bogmutty river, and for­merly possessed of a fort. Long. 85. E. Lat. 26. 16. N.

TURKIN, a small town of Asiatic Russia, in the go­vernment of the Caucasus, on the Caspian, 140 miles S. of Astracan.

TURN-AGAIN, a low, flat, and swampy island in Torres Strait, about three miles in length. It is sur­rounded with reefs, and is overrun with mangroves. Long. 140. 55. E. Lat. 9. 34. S.

Turn-again, Cape, on the east coast of New Zealand, discovered by Captain Cook in 1769. Long. 177. 55. W. Lat. 40. 34. S.

TURNHOUT, a city of the Netherlands, in the pro­vince of South Brabant. It is the capital of an arrondisse­ment, which extends over 518 square miles, is divided into six cantons and 48 communes, with 76,800 inhabitants. The city is in the district called the Campine, and is a place of active manufacturing industry, especially in pro­ducing thread-lace and linen goods of the best kind. It has, besides, several breweries, distilleries, bleacheries, and snuff-mills. The inhabitants arc about 11,000.

TURNING, the art of giving circular and other forms to objects, by making them revolve in various manners in a machine called a lathe, and applying cutting instruments so as to produce the form required ; or by making the cutting instrument revolve, when the object to be operated upon is fixed.

This art is of great antiquity, and is of immense import­ance to the practical mechanic. It embraces many varieties requiring varied machinery for their proper performance, from the simple throwing wheel of the potter to the com­plicated and nearly automatic slide-lathe, in which, almost independent of manual dexterity, an indefinite number of copies of an article can be produced with unerring ac­curacy.

There is probably, in the range of mechanical opera­tion, none susceptible of greater accuracy than the art of turning, and there is none which has so much condu­ced to the improvement of our machinery. The extent of the applications of this art may be learned by the four fol­lowing conditions, which comprise the most important of its varieties. A knowledge of the manipulations no mere de­scription can convey ; and as, in the limits here assigned us, it would be impossible to describe all the varieties of the art, and the machines made use of, we shall content our­selves with such a selection as may appear to us to possess the greatest interest for the general reader.

1st. The article to be turned may be made to revolve round its own axis, and the cutting tool applied to its sur­face, so as to produce the requisite form, as in simple turn­ing, performed in the ordinary lathe used by cabinet-turners ; the more powerful lathe used for turning metal of large diameter ; and the self-acting slide-lathe.

2d. The article may remain stationary, while the cutting instrument either merely revolves, or, while revolving, has at the same time some other motion given to it.

3d. The article may be made to move in some curve de­rived from circular motion, and the cutting tool applied as before.

4th. The article may be made to revolve, and at the same time to have a reciprocating motion in the direction of its axis, the cutting instrument being only applied, however, while the article is either in the course of its forward or backward motion, but its application not continued through both ; and all these motions may be more or less combined, thus producing almost infinite variety.

The self-acting slide-lathe being the most perfect of the ma­chines of the first class, we have preferred giving a drawing and description of it ; from these, the other lathes referred to will be more easily understood than if we had described a less perfect machine. The lathe, when of large size, is generally driven by steam or other power; but when small it is driven by a treadle put in motion by the foot of the workman. The treadle acts on a cranked axle, on which is fixed a fly-wheel ; and a band from the fly-wheel passes over the pulley of the mandril or spindle, to which the article to be turned is attached. This is generally the arrangement of the common lathe, which differs from the slide-lathe only in wanting the slide and its moving apparatus, which we are about to describe, and has in place of it a simple rest to work by hand.

The following figures represent the slide-lathe as constructed by Messrs Whitworth & Company of Manchester, and exhibit certain contrivances which have been patented by these gentle­men.