

gained by the plough-share ; and those of the other by the sword. The Anglo-American relies upon personal interest to accomplish his ends, and give free scope to the unguided exertions and common sense of the citizens ; the Russian centres all the authority of society in a single arm ; of the latter servitude. The starting point is different, and their courses are not the same ; yet each of them seems to be marked out by the will of Heaven to sway the destinies of half the globe.

"Arbitrary institutions will not forever prevail in the Russian Empire.—As successive provinces and kingdoms are added to their vast dominions, as their sway extends over the regions of the south, the abode of wealth and long established civilization, the passion for conquest will expire. Society will extinguish this, as it does all other desires. With the acquisition of wealth, and the settlement in fixed abodes, the desire of protection from arbitrary power will spring up, and the passion of freedom will arise as it did in Greece, Italy, and modern Europe. Free institutions will ultimately appear in the realms conquered by the Muscovite, as they did in those won by Gothic valor. But the passions and desires of an early stage of existence will long agitate the millions of the Russo-Asiatic race ; and after democratic desires have arisen, and free institutions exist in its older provinces, the wave of the northern conquest will still be pressed on by semi-barbarous hordes, from its remotest dominions.—Freedom will gradually arise out of security and repose ; but the fever of conquest will not be finally extinguished till it has performed its destined mission, and the standards of the cross are brought down to the Indian ocean."—*Blackwood's Magazine.*

MAN CREATES NO POWER.

Of those machines by which we produce power, it may be observed, that although they are to us immense acqui-

sitions, yet in regard to two of the sources of this power, the force of wind and of water, we merely make use of bodies in a state of motion by nature ; we change the directions of their movement in order to render them subservient to our purposes ; but we neither add to nor diminish the quantity of motion in existence. When we expose the sails of a windmill obliquely to the gale, we check the verocity of a small portion of the atmosphere, and convert its own rectilinear motion, into one of rotation in the sails ; we thus change the direction of force, but we create no power. The same may be observed with regard to the sails of a vessel ; the quantity of motion given by them is precisely the same as that which is destroyed in the atmosphere. If we avail ourselves of a descending stream to turn a water-wheel, we are appropriating a power, which nature may appear, at first sight, to be uselessly and irrecoverably wasting, but which, upon due examination, we shall find she is ever regaining by other processes. The fluid which is falling from a higher to a lower level, carries with it the velocity due to its revolution with the earth at a greater distance from its centre. It will, therefore, accelerate, although to an almost infinitesimal extent, the earth's daily rotation. The sum of all these increments of velocity, arising from the descent of all the falling waters on the earth's surface would in time become perceptible, did not nature, by the process of evaporation, convey the waters back to their source ; and thus again, by removing matter to a greater distance from the centre, destroy the velocity generated by its previous approach.

The force of vapour is another fertile source of moving power ; but even in this case it cannot be maintained that power is created. Water is converted into elastic vapour by the combustion of fuel. The chemical changes which thus take place, are constantly increasing the atmosphere by large quantities of carbonic acid and other gases noxious to