PITTSBURGH GAZETTE.

SATURDAY MORNING, OCT. 30, 1852.

STEAM AND MOTIVE POWER.—Some years since a French civil engineer, M. du Tremblay, invented a method of applying the vapor of ether in combination with steam as a motive power. His method consisted in the employment of steam after it has exerted its elastic force in one cylinder, for the other cylinder, at the same time condensing the exhausted steam by bringing it into contact with the surface of the generating containing the other. The mode of its use was either with a single engine with two cylinders, or with two distinct engines having a cylinder each; one of the pistons being worked by steam generated in the ordinary manner, the other by the vapor of the ether produced by the following process. Upon the exhausted steam from the steam cylinder being brought into contact with the vessels of a vessel charged with ether, a vapor passes off, its caloric is absorbed by the liquor, which thereupon instantly vaporized; while the steam, by being deprived of its caloric of vapor, becomes condensed, and returns into the boiler, which, by this means, is periodically and regularly supplied. The vapor obtained from the ether, by the action of the steam then passes into the second cylinder, and after exerting its elastic force upon the piston, is itself condensed by means of cold water, and in this form returned into the vaporizer.

This invention of M. du Tremblay attracted the serious attention of the French Government and commissioners were appointed by the French Admiralty to examine into its merits and capability. The result of these commissions was that the French Government ordered an engine to be built upon M. du Tremblay's principles. This was accordingly done, and the engine was fixed on board a steamer, and on the 16th of March, 1846, it made its trial trip. This difficulty has, however, been removed by the ingenuity of M. Le Fond, a French naval officer of high scientific attainments and professional accomplishment, who proposes to make the system of Du Tremblay available for practical purposes by ingeniously obviating its defects. The French Government has approved of M. Le Fond's invention, and accordingly, in addition, two engines of 60 horse power upon this principle are now in the course of construction, and on the eve of completion. It is confidently expected its use would realize a saving of at least 50 per cent. in the expenditure of fuel.

A difficulty, however, subsequently arose which had not been anticipated, and this was the highly inflammable character of ether, a quality which rendered it inexpedient to adopt it on board of a ship. This difficulty has, however, been removed by the ingenuity of M. Le Fond, a French naval officer of high scientific attainments and professional accomplishment, who proposes to make the system of Du Tremblay available for practical purposes by ingeniously obviating its defects. The French Government has approved of M. Le Fond's invention, and accordingly