

fad stands in the way—the free trade fad, by the persistent observance of which Great Britain stands to lose a valuable possession—nay, many valuable possessions.

And now a significant telegram comes over the wires from Jamaica to the effect that coincident with the conference that is to assemble on September 3rd, at Barbados, for the purpose of protesting against the sacrifice of the sugar industry of the British West India Islands by Great Britain, Jamaica is proposing a plebiscite to learn if the inhabitants would not prefer annexation to the United States; and we are told that while the promoters of the movement will endeavor to secure the co-operation of the other West India Colonies, they are not depending upon it.

Unless something is done to counteract this movement Jamaica will soon be lost to the British Crown, and not only Jamaica but all the other West India sugar-producing colonies, for should Jamaica lead the way the others will quickly follow. No power but that of the Imperial Government can quiet the trouble, and if that power is not evoked, and that without much delay, the disintegration will begin, but where it will stop none can tell. That something so necessary to be done consists simply in giving British subjects in the West India Islands as much favor in the British market as is given there to subjects of Germany, France, Belgium and other countries that pay bounties upon their exports of sugar. Countervailing duties will do it.

Canada is willing to sacrifice a great deal to secure imperial unity, but what is Great Britain willing to do? Canada can afford, probably, to sacrifice many of its most valuable interests to help Britain, but it is evident that British selfishness has exhausted the patriotism and patience of the people of her West India possessions, and Canada will soon weary of doing for the Mother Country that which it persistently refuses to do for itself, even if disintegration is the result.

THE SMOKE NUISANCE.

The dense volumes of smoke emitted from the tall chimneys of industrial establishments in Toronto and other places are entirely out of proportion to the number of such establishments. Aside from the discomfort arising from the soot floating in the atmosphere, it indicates a money loss of no small value. Efforts are being made constantly by steam users to abate the nuisance, and it is interesting to observe what is being done in other places with that end in view. The American Manufacturer says:

The Pittsburg municipal authorities have begun another crusade against the smoke nuisance, and tests of the steam plants at various establishments are now being made. The best feature of this movement is that common sense methods are to be used, and the investigation is not to be made for the purpose of introducing any particular device. The official having the matter in charge is quoted as saying that the question of smoke abatement will be dealt with in a practical way, and he notifies all steam users within the city limits that instead of putting them to any additional expense and trouble, in every case the plans he proposes to put in operation will mean a saving of at least 15 per cent. He states that investigation so far has shown that the smoke nuisance is due first, to improperly constructed furnaces; second, to a lack of ample boiler room, and third, inadequate

means to keep the flues and boilers free from scale and soot. The main trouble, he declares, is lack of ample boiler capacity as this causes the boilers to be driven to their utmost, and great quantities of smoke are the inevitable result. Therefore the generating capacity of the boilers should be sufficiently in excess to easily meet the requirements for power.

The foregoing plain facts are too often lost sight of in dealing with the smoke question. In attempting to abate the nuisance, too little attention is paid to the conditions under which a steam power plant is being operated. Instead of working by the best methods, and providing a plant able to meet requirements, an inadequate equipment is pushed beyond its proper limits, and the owners then hunt for some device that will accomplish impossibilities. The Pittsburg authorities are going at the matter in the right way, as they will show the operators of steam plants how much can be accomplished by proper construction and sensible methods.

In a recent issue of this journal mention was made of the abandonment and demolition of the tall chimneys of the works of the B. F. Sturtevant Company, and the installation of a fan on the top of the boilers, the gases of combustion being drawn through it and discharged through a short stack extending but a few feet above the top of the boiler house, the arrangement being simple, convenient and economical.

One of the incidentals of economy, independent of the lessened first cost of such a mechanical draft apparatus, is the gain in floor area on the floors through which a chimney usually passes. The fan occupies no valuable space, and no expensive foundations are required.

In the case alluded to the stack does not extend above the top of neighboring buildings, and no inconvenience has resulted therefrom. In fact, smoke is scarcely ever visible, and then only for an instant, the positive and ample supply of air resulting from the operation of the fan serving to promote perfect combustion. By means of a special automatic device the speed of the fan is exactly regulated to the requirements of the fire and the steam pressure is maintained absolutely constant.

With the modern advance in steam engineering practice, the economy of steam generation is receiving more of the attention which was previously accorded to grates. Efficiency in its utilization is imperative and mechanical draft is turned to as one of the important factors in decreasing the wastes usually incidental to the production of steam. The intensity of draft produced by a fan, and its entire independence of the temperature of the escaping gases, makes possible the utilization of much of the heat which is otherwise wasted, and which must be incidental to the operation of a chimney in which the draft is directly dependent upon the temperature of the gases.

BRITISH TRADE WITH CANADA.

British manufacturers are awaking to the fact that if they are to hold their own in Canadian trade they must bestir themselves. Good easy souls they have always been in considering that Canada was their persimmon that they could gather at pleasure, oblivious to the fact that the trade was fast slipping away from them—indeed has almost gone—gobbled up by their more enterprising Yankee rivals. But now they begin to comprehend the situation, and we are told by a London contemporary, The Hardware Exporter, that British