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OUR GREAT AGRICULTURAL SUPREMACY.

The farmers of the United States are now obtaining from other parts of the world more money for the fiscal year which ends with this month than in any preceding year in the history of the country.

Never before have the exports of the agricultural products reached the \$800,000,000 mark, and never but twice have they passed the \$700,000,000 line.

Naturally the export of breadstuffs takes the most prominent place, as they amount to nearly \$1,000,000 for each business day, and the total will be more than \$100,000,000 in excess of the last year's exports of breadstuffs.

Live beef is gaining greatly in popularity with the foreign customers and the exports have increased materially, while beef, either fresh, canned or salted, not only shows no increase, but in most cases there has been a falling off.

Agricultural products are by far the largest factor in the exports of this country, but the exports of the manufactured products have also increased, and the wonderfully favorable conditions of foreign trade during the past three years are perhaps not fully appreciated in their influence on the financial strength and general prosperity of the country.

For the year ending with June, 1896, the excess of merchandise and silver products over imports amounted to \$133,000,000, and in the following year the balance in favor of this country was \$315,000,000.

It is still too early to speak with assurance of the probable requirements of Europe during the coming year, but the outlook is hopeful. Crop prospects in this country are very favorable, the wheat crop promising the largest aggregate yield ever known.

The remarkable showing made by our export trade in agricultural products and the hopeful outlook cannot fail to have a most important bearing upon the material prosperity of this country.

PROPER CARE FOR OUR SOLDIERS.

From various sources are echoed complaints of shortcomings and indifference regarding the treatment of our soldiers, both regulars and volunteers; and these are openly ascribed to political intrigue and monetary influences whereby ignorant and incompetent individuals are thrust into positions that, by all right and justice, should be filled by skilled and specially trained subordinates from the regular service.

The statement is made that in matters of transportation troops have not been treated even with the consideration accorded to "perishable live stock," the conditions obtaining, at best, being worse than the worst that could accrue to an emigrant ship.

have been matters of criticism, the sites being selected without any regard to fitness, whether for health, for facilities in teaching new recruits their duties, or for general military maneuvers; they are often shadeless, the tents (of improper pattern) pitched in the midst of deep sands, with poor and inadequate water supply.

There seems to be a general and well founded suspicion that the charges are not wholly baseless; but that they are exaggerated in many instances, sometimes drawn from untrustworthy sources, and even on occasion formulated as the result of incomplete knowledge of military affairs and exigences, seems probable.

From May 14 to June 12 the Subsistence Department of the army has forwarded 29,123,945 rations weighing 32,180 tons. The Ordnance Department, working under difficulties—since it was necessary to induce private firms to enter upon manufacture involving sometimes the installation of new machines, tools and the education of workmen along special lines,—in the same time has secured constantly increasing supplies of special stores, until now the receipts practically equal the demand.

All this certainly makes a very respectable showing, on paper at least, but would seem to have been prepared with a view rather to divert attention from the salient features in the charges made than as a reply. No notice is taken of abuses, real or assumed; the questions of incompetency and neglect on the part of officials appointed for political or other personal reasons, to the detriment of the service and wronging of competent and experienced individuals, are ignored; not a word appears regarding the quality and suitability of clothing or rations, or of the imperfections of camps, of camp equipage and camp locations, to say nothing of minor shortcomings, that if true could not fail to demoralize any body of troops, let alone our own with their lack of seasoning, suitable training, etc. All these are vital, and we wish the Secretary for War had taken them into account, and, if true, even in part, afforded some assurance of speedy reform.

That abuses do exist and have existed is self-evident; but that they are or have been avoidable we do not profess to know. Many, undoubtedly, were (or are) inseparable from measures necessitating a speedy mobilization of regular troops that have scarce any experience in regimental and brigade organizations, or of volunteers that are almost wholly formed of raw material. Neither the issuance of new forms of rations or of new uniforms can be made matters of a few hours, and comparison with European nations, who constantly keep magazines of stores in readiness for a quarter of a million of reserves, are not at all pertinent. The United States has never had reserve equipments of clothing or provisions for more than a mere handful of troops, and the present crisis may teach a lesson in this regard. Further, while that which has passed cannot be corrected, there are no excuses for the future. Officials cannot longer shield themselves behind the barrier of lack of specific information or the impossibility of securing supplies in consonance with the demand—this is

practically and essentially admitted by the Secretary for War.

**RELIEF FOR THE PATENT OFFICE.**

The "Act for Revising and Perfecting the Classification of Letters Patent and Printed Publications of the Patent Office," as passed by the Senate a few weeks since, was, on June 6, concurred in by the House by a vote of 153 to 58, and has been signed by the President. The complete text of the bill is as follows:

Be it enacted, etc., That for the purpose of determining with more readiness and accuracy the novelty of inventions for which application for letters patent are or may be filed in the United States Patent Office, and to prevent the issuance of letters patent of the United States for inventions which are not new, the Commissioner of Patents is hereby authorized and directed to revise and perfect the classification, by subjects-matter, of all letters patent and printed publications in the United States Patent Office which constitute the field of search in the examination as to the novelty of invention for which applications for patents are or may be filed.

SEC. 2. That for the purpose of enabling the Commissioner of Patents to carry out the provisions of this act the Secretary of the Interior is hereby authorized to appoint from time to time, in the manner already provided for by law, such additional number of principal examiners, assistant examiners, first-class clerks, copyists, laborers, assistant messengers, and messenger boys as he may deem necessary: Provided, however, That the whole number of additional employes shall not exceed 3 principal examiners, 2 first assistant examiners, 2 second assistant examiners, 6 third assistant examiners, 5 fourth assistant examiners, 4 first-class clerks, 4 copyists, 6 laborers, 6 assistant messengers, and 6 messenger boys; that the annual expenses for this additional force shall not exceed the sum of \$62,800.

Notoriously, for many years, the delays incident to securing letters patent have been both wearying and vexatious, to say nothing of the jeopardizing of many interests essential and financial. Eighteen months, even two years, have in some instances been consumed ere the desired papers, and the protection they are supposed to afford, could be secured, and that, too, in the face of the fact that Patent Office employes have long been worked harder, and worked more overtime, than those in any other department of the United States government, and, moreover, have annually turned into the Treasury more money representing actual net profits. Such a deplorable condition of affairs is no reflection upon the conduct of the Patent Office or its Commissioner, but is due to the lack of interest in the matter taken by the members of Congress in the past, and a failure to fully appreciate the great necessity for maintaining the work of the Patent Office at the highest possible standard. As a result, the work of the Patent Office for more than a decade has been going behind in consequence of the increasing business; and the complaints regarding delays—absolutely inevitable under the conditions existing—hourly grew in number and in insistence.

Inasmuch as the Patent Office is more than self supporting—its net profits in 1897 being fully \$252,000—coupled with the fact that it already has lying idle in the Treasury more than \$5,000,000 that by enactment are utterly unavailable for any purposes whatsoever except those of this office, it seems surprising that any combination should be formed among legislators for the purpose of rendering this surplus useless. It must be remembered all receipts of this department are at once turned into the United States Treasury and that the current expenses are obliged to be provided for from the same, by legislative appropriation.

When the Act came before the Lower House on its final passage, the animus of certain members was actively displayed, and objections of the most petty and trivial character formulated. Among the most persistent opponents was Mr. Dockery, of Missouri, who willfully and wantonly ignored all evidence and facts, and emotionally appealed to the House not to increase the burdens of the people of the United States by class legislation at a time when the general tax rate is required to be advanced in order to carry on a war with Spain; and though while on the floor he was repeatedly corrected and shown that the fund from which the appropriation must come was the property of the inventors of the country and should not be diverted to other uses, the gentleman insisted upon declaiming regarding a hypothetical outrage about to be perpetrated on the tax-paying community at large. Neither argument, reason nor fact could stay the current of this sophistical tirade, and to the last, the representative from Missouri assumed that his position was dictated by economy and the interests of the country in general.

By the courage and insistence of the Commissioner and the friends of the Patent Office in the Senate and House, a victory has been won that is not only commendable per se, but that will prove of far-reaching benefit. The Commissioner expects that all arrearages will be disposed of by January next; also, that a newer, better and more direct and comprehensive system of examination and classification will speedily be inaugurated, whereby definite decisions and comparisons can be given that will relieve the patentee of the burden, so frequently necessitated, of appeal to the courts to establish the rights and status of an invention.

It is greatly to be hoped that the new order of affairs, once entered upon, will be permitted to exist, and that the Patent Office will no longer be hampered by capricious and trivial legislation; that, in fact, a strictly

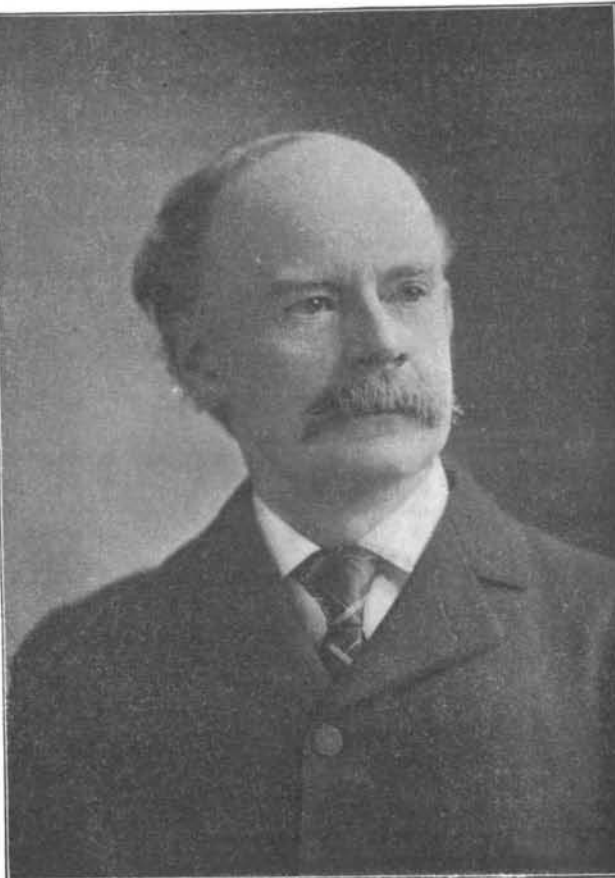
businesslike and profitable department will be permitted to conduct its affairs along strict business lines. When Mr. Duell took charge of the office, in February last, there were nearly 10,000 new and nearly 4,000 amended applications awaiting its consideration. The new work on applications dated back to July, 1897, and amended applications back to September, 1897. The Commissioner early directed that the old work be brought and kept up to within fifteen days, and whenever necessary the force was required to remain until five o'clock to accomplish this result. By this means the office has made a gain of 1,200 cases in amended work, but the Commissioner expresses himself as opposed to this unjust although necessary discrimination against his force, which he claims is a force unequalled by that of any other bureau.

We desire that our readers shall understand that persistent efforts have been made by the Commissioner in his desire to advance the interest of the bill. We congratulate him on the success attained, and Congress upon recognizing the urgent needs of the inventors and patentees of the country.

No greater evidence could be advanced of the intelligence and liberal spirit of the present Congress than the attitude it has taken in passing this bill by such a large majority. It is welcome to all classes in the community to feel that the manufacturing and industrial interests of the country as protected by our patent system is being fully upheld.

**STREET CLEANING IN EUROPEAN AND AMERICAN CITIES.**

After an extended personal examination of the street



LATEST PHOTOGRAPH OF COMMISSIONER OF PATENTS CHARLES H. DUELL.

cleaning methods in vogue in the principal Continental cities—London, Birmingham, Brussels, Paris, Berlin, Cologne, Munich, Turin, Genoa, Vienna and Budapest—Ex-Commissioner George E. Waring, Jr., embodies his observations in a detailed report to the mayor of the city of New York. Though many novel features were noted, little was discovered that offered improved effectiveness or facilities over methods now in vogue in one or two cities on this side of the Atlantic, and in many instances the procedures are much more crude and clumsy. In the matter of street sprinkling, however, most foreign cities are superior to our own, in that it is not done by contract, or farmed out, but undertaken exclusively by the municipality; hence all streets and portions of streets are sprinkled uniformly; and, as regards asphalt pavements at least, water is not allowed to stand or accumulate, but the surface is frequently "squeegeed" or dried by means of a rubber scraper.

The most important and suggestive consideration offered by Mr. Waring is that which concerns the relation of the people to the work, and largely, as leading to that, the manner in which the police intervenes to prevent the littering of streets. While the municipal ordinances relating to such are nowhere better than those of New York and other American cities, the vital differences lie in the enforcement thereof.

In Europe all ordinances are enacted with the view of being strictly enforced; in the United States generally, many ordinances merely serve to encumber the statute books, being treated as matters of form unworthy of further consideration, once they have been duly engrossed. Abroad the "guardian of the peace" would no more think of disregarding an act that would

lead to littering the street, or the accumulation of filth therein, than he would of disregarding the operations of burglars or highwaymen. In cisatlantic cities, the policeman dignifiedly saunters by a crowd busily engaged in littering the street, utterly unconscious, seemingly, that an ordinance is being violated; but on the Continent such act, if by a resident, entails prompt arrest followed by a fine; if by a stranger, he is first required to remove the cause of his offending and is then cautioned against repetition; even if but a tiny scrap of paper has been thrown down, it must be at once recovered, or the full penalty will be exacted. One notable feature observable in Continental cities is that no one expectorates on the footwalks, but when such act is rendered necessary, it is the carriageway or gutter that suffers; and an ordinance to this effect, if enforced, would go a long way toward making the footwalks of American cities more suitable to lady pedestrians.

In Austria and Austria-Hungary were found the best street sprinklers, best snow plows, and best street sweeping machines. The two latter were particularly effective, being specially adapted to the work required; each of the former is followed by an individual who carries the sprinkler from side to side as needed, insuring even distribution of the water on all portions of the pavement.

In the matter of disposal of sweepings and garbage, most Continental cities are sadly hampered. In some the refuse is carried far beyond the limits of the municipality by specially provided railway trains, to be dumped in some arid or unobtrusive locality, there to be systematically sorted, a part, perhaps, being utilized as filling for low and marshy areas. The sorting is chiefly performed by women and children, who receive only a mere pittance at most. Some English boroughs have adopted cremation, and however ideal the process may seem, it is not without unpleasant features; aside from odors, the fine dust and ashes that result upon combustion escape from the chimneys of the retorts, are carried to considerable distances, and create a constant annoyance and cause of complaint on the part of residents of the neighborhood; the higher the chimney, the greater the area thus affected. Manifestly, cremation of garbage will not increase in public favor, and it has already been practically abandoned in several American cities where it has been attempted. In Detroit, Michigan, especially, it has entailed a series of lawsuits against the municipality.

The principal thoroughfares in London are kept as nearly clean and immaculate as it is possible for them to be made by human device and ingenuity. Boys with brushes and exaggerated iron "dust-pans" are constantly on the alert, and anything and everything is swept up almost as soon as it touches the pavement, to be deposited in close boxes placed at regular intervals along the curbs; and these boxes in turn are replaced by others several times daily, the filled receptacles being carried away by relays of carters.

Ignoring the difference in wages paid to street cleaning employes, the expense entailed in keeping cities clean is not less, and oftentimes considerably greater, abroad than in the United States, accepting New York as a type of the latter; and even when the matter of wages is also computed, the advanced expense here entailed is trifling by comparison.

The ease with which dust, ashes, paper, droppings of cattle and other garbage is disposed of, coupled with the monetary returns accruing to sortage and sales, are no inconsiderable factors in reducing the expenses of street cleaning in New York; the advantages of this city in these directions are practically without a parallel on either hemisphere. But road-making, paving, and especially the preparing of road-beds prior to surfacing, is, as a rule, considerably further advanced in Europe than in the United States. Asphaltum pavements are uniformly better; but those surfaced with wood are decidedly worse, though better cared for. Macadamizing is in its infancy in this country, and there is much to be learned as regards the preparing of the road-bed prior to surfacing. Stone pavements abroad are much more carefully and thoroughly laid, and the blocks better prepared, being nearly as uniform in size and surfaces as pressed bricks, thereby avoiding unsightly joints which serve to accumulate filth.

The final conclusions of Ex-Commissioner Waring are, that while cisatlantic cities, including New York, afford material opportunities for improvement in street cleaning and road-making, they have little to learn as regards the former from the methods that obtain in Europe.

A UNIQUE feature of nearly all homes and offices in Manila is the use of tiny square panes of translucent oyster shells instead of glass. The windows measure on the average six feet long and four feet wide and contain 200 of these oyster shell panes, which temper the fierce glare of the sun in the building. In a country where many people go blind from the constant sunshine this is a precaution very necessary to be taken.