

one percent of the total percentage just found—additive if the temperature is below 25° C. and subtractive if it is above 25° C. The barometric correction is four-thirtieths of one percent of the total percentage just found for each millimeter—additive if it is above 760 mm. and subtractive if it is below 760 mm.”

It seems to me that this is carrying our predigestion to the extreme. It ought to suffice to say that the volume of gas should be corrected for temperature and pressure. If operators do not know how to make these corrections, they are working mechanically, and are always in danger of error, hence not safe analysts.

*Eighth.*—In the assay of lactic acid, we are instructed to pour about 2.5 mils into a tared and stoppered 250 mil flask, weigh accurately, and proceed with the assay. It would seem better to me that the amount be weighed in a weighing bottle and later transferred to a larger flask, just as is done in the case of phosphoric acid. The error in weighing would be less if weighed in a small weighing bottle. It can be easily transferred to a larger flask, the weighing bottle rinsed and the rinsings added. The same is true of the assay of the following acids: Hypophosphorous, dilute hypophosphorous, nitric, sulphuric, dilute sulphuric, hydrobromic, hydrochloric, dilute hydrochloric, acetic, dilute acetic and glacial acetic.

State Boards of Pharmacy often ask the meaning of the term “official,” and also ask applicants to state whether certain substances are official or non-official. Since this is true, the term official should be carefully defined and should mean the same to all persons using it. This term is defined in the U. S. P. on page LXV as synonymous with “Pharmacopoeial.” This is very confusing, because the word has a definite meaning, that is, it means authoritative, and the N. F. is as much an authoritative guide as the U. S. P.

The U. S. P. became an official standard June 30, 1906, when the Pure Food and Drugs Act became effective, but the N. F. became official at the same time. One other national law recognizes these books as official standards, namely, the National Prohibition Law. Since the N. F. receives the same recognition as the U. S. P. in all Acts that make the U. S. P. an official standard, it seems to me that it is a mistake to limit the term to the U. S. P. products.

I believe that an official substance is one that is recognized by either of our official standards and I hope that, in order to avoid confusion, the next revision committee will so interpret this term.

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## PROTECTING AND EDUCATING THE PUBLIC THROUGH POSTAL LAWS.\*

BY LYMAN F. KEBLER.<sup>1</sup>

The United States Post Office Department is the largest business enterprise in the world—an enterprise that should be conducted with a maximum of efficiency, and a minimum of things should go wrong. Legitimate business should be encouraged, not hampered. The right to do an honest business is a legal right.

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\*Read before Section on Education and Legislation, A. Ph. A., City of Washington meeting, 1920.

<sup>1</sup> Chief, Drug Division, U. S. Department of Agriculture.

It is through the mails that huge volumes of private business are conducted in secret. The mails may likewise be and are used secretly for blackmail, to send poisons, to carry obscene matter, to defraud, etc. Such offenses cannot be stopped unless they are brought to the attention of an Administrative Officer and he has authority to act.

MAILS TO BE KEPT SAFE, CLEAN AND FREE FROM FRAUD.

The Postmaster General is required by law to keep the mails safe, clean and free from fraud. It is surprising what things do find their way into the mails. For example, mixtures of nitroglycerin and milk sugar, akin to dynamite; a device containing wood alcohol, so packed that if the mail bag containing it were laid on a radiator or brought in contact with a steam pipe the cover would be blown off, the alcohol dissipated and thus readily take fire; a mixture of chemicals likely to explode when subject to a sharp blow; deadly poisons, filthy matter, etc., have all been met with. In order to protect the life and health of postal employees, passengers on ocean-going steamers, and safeguarding property and mail matter, it is necessary to keep explosive matters and substances liable to take fire, out of the mails, and restrict the mailability of other commodities.

With the advent of the parcel post, new factors aside from the safety of the mails, employees, etc., came into existence. Foods are commonly sent by the mails now and the breaking of a package of poison may poison food products, with unfortunate results.

Schemes, artifices and devices to defraud, through the use of the mails by means of false and fraudulent pretenses, representations and promises, are legion. They include land schemes, mining schemes, medical schemes, fuel saving mixtures, gasoline savers, jewelry swindles, bogus bankers and brokers, ten cent silk petticoat chain schemes, toy furniture for real furniture, fat-making and fat-reducing schemes, schemes to sell adulterated or misbranded merchandise, beauty schemes, artifices for making knotty, kinky hair straight, devices for effecting adulteration, etc. This article is based largely on the operation of the law in connection with medical schemes.

We are all agreed that it is unwise to clothe any Government official with executive or administrative powers that will enable him to deprive a citizen of his rights and privileges, without having a day in court, if he so elects. Some of the charges made against the fraud law are, that it is ex-judicial, unfair and is sometimes arbitrarily administered. No one will deny that mistakes are possible. A brief résumé of some certain features may, however, be interesting.

The method of enforcing the act prohibiting the use of the mails to defraud is assailed from time to time, but unwelcome as it may be, no better plan has been forthcoming, so far. Experience shows that many right-thinking citizens are opposed to the handling of judicial questions by purely administrative procedure; and the postal authorities often wish that there were some other course, but so far nothing of a definite or satisfactory character has been proposed to handle the various problems that present themselves. It should be said, however, that the courts have long recognized and treated with approval the delegation to administrative officers, of quasi-judicial powers in the administration of their respective departments. In fact, the principle is almost as old as our English Jurisprudence.

The mails are designed for the use and convenience of the public. This use is a privilege granted by the Government to any one residing either within or without the United States. The highest court in the land has decided that this privilege may be withdrawn for cause. Congress has passed laws directing what is and what is not mailable. The Postmaster General is directed to enforce these laws and is given certain discretionary powers.

#### POSTMASTER GENERAL MAY WITHDRAW PRIVILEGES OF THE MAILS.

In case of fraud order procedure, this official may, upon evidence satisfactory to him, that any person or company is engaged in conducting a scheme or device or artifice for obtaining money through the mails, by means of false or fraudulent pretenses, representations and promises, withdraw the privileges of the mails from such parties. This means that the person or company is prohibited from receiving any further mail addressed to said person or company and all registered letters so addressed are marked "fraudulent" and returned to the original sender.

The hearings are conducted in the same manner as are court cases, excepting that they are not public, the testimony of witnesses is not given under oath and there is less formality in presenting the evidence. There is great flexibility. Everything the Government relies upon is submitted in evidence and the defendant is permitted to present anything he feels advantageous to his case. He is given a full hearing and every possible chance to rebut or explain the charges against him. There is examination and cross-examination by all parties. A fraud order is not always issued, even though the business is shown to be a scheme to defraud. If the Postmaster General finds mitigating circumstances, he often accepts an affidavit from the party agreeing to discontinue business immediately or after a certain stipulated date. Some say, if it is a scheme to defraud, a fraud order should issue. The department is sometimes taken severely to task for not excluding certain enterprises. This is because they misconstrue its functions and powers. More is expected under the law than is reasonable or possible. In case a fraud order is issued, and the defendant considers himself unfairly or illegally treated, or that his rights have been invaded, by an administrative or an executive officer, he is at liberty to challenge the act of such an official, by applying to the court and asking that the administrative order be stayed by injunction.

#### POSTMASTER GENERAL TO ACT ON FACTS, NOT OPINIONS.

Our Government is a government of laws, not of men. The Postmaster General is vested with the power of passing on questions of fact. The courts interpret the laws. In determining whether his acts are justifiable, he is on an equality with a private citizen before the courts. A number of cases have been passed on by the courts and the Postmaster General has been informed that his conclusion and action must be based on facts and not on opinions. Defendants full well know their rights in this matter and will not accept a fraud order if they think there is a possibility of annulling it by court procedure. In fact, the methods of procedure under the Postal Laws and the basis of action are quite well crystallized by court decisions.

Most of the defendants consider themselves fortunate indeed, if no further action is taken than that covered by the fraud law which is purely protective of

the public. What they fear is being taken into court under the Postal Criminal Statute dealing with these matters. The penal act carries not only a monetary fine but also a penitentiary sentence, in the discretion of the courts. In one medical scheme case fourteen defendants were involved. Only nine of these could be located when the case came to trial and they were convicted by a jury of twelve good citizens. Eight appealed the case, of these six were physicians, and two laymen. The Appellate Court affirmed the conviction of the physicians, but felt that the laymen did not have the medical knowledge necessary to establish consciousness of wrongdoing and were therefore absolved from guilt.

The writer has been identified with the work of the Post Office Department in an advisory capacity for about 15 years in matters dealing with fraudulent medical schemes, alleged consumption cures, cancer treatments, obesity remedies, fat makers, breast developers, vitality restorers, so-called fuel savers and the use of the mails to exploit adulterated and misbranded foods and drugs and other articles of commerce. Under the circumstances he reads with interest some of the articles appearing in the press from time to time attacking the Postal Officials handling schemes to defraud.

#### MANY PEOPLE EASY VICTIMS.

The Postmaster General stands between the medical schemers and certain of the simple, credulous public. It is surprising how often it is necessary to protect would-be victims against their own folly. It sometimes seems that the greater the fraud the more voraciously will some people bite. There are rascals continually planning to swindle the unwary. One of the greatest assets of the sharper is that the sucker seldom learns his lesson. He goes back again and again and each time bites with more avidity.

While writing this article there appeared in the New York newspapers notices of the sale of 25,000 names, a customer list, the property of a mail order broker who is a fugitive from bankruptcy attachments. It contains the names of doctors, lawyers, teachers, business men, widows and orphans. These customers, it is reported, have sent the broker nearly \$750,000 for investments that were never made. Such lists are common. They are frequently referred to as "Sucker Lists."

In the *Washington Star* of February 1, 1920, appeared an editorial entitled "A Sucker List." This editorial contains the following very interesting statements:

"A high value is placed upon a 'sucker list' of this kind. It does not, of course, follow that everybody whose name is on such a roll is an easy mark for a swindler or a promoter of fake schemes. The majority of those addressed probably throw the alluring literature into the waste basket immediately on receipt, but if out of 25,000 people thus addressed, 5,000 "bite" the profits are immense.

"If it falls into honest hands it will do no harm. If, however, it is obtained by another wildcat promoter of the same ilk as the former owner, it may be the means of further mulcting a great many people of a large sum of money."

It is not believed that any one seriously thinks for a moment that the privileges of the mails should be available for the execution of such gigantic swindles, if known to the postal authorities and there is a reasonable way to prevent it.

## MEDICAL SCHEME FRAUDS.

On the medical side we find the mails used to exploit many alleged cures. As an example may be mentioned a "cure" for any ailment of humanity, effected by putting a few drops of a weak, watery solution of sugar and salt ( $2\frac{1}{2}\%$  each) into the eye of the afflicted, the theory being that through the optic nerve the medicine will reach all parts of the body, and thus effect the "cures." Some one will say that people who will be so foolish as to try any such a thing ought to be stung. Whatever argument may be put forth, the facts are that at the time the business was intercepted, the promoter was taking in about \$150,000 a year. The public received no possible beneficial results from the scheme. It was a losing proposition. The intent to defraud was clearly evident. A fraud order was issued against the business of this sharper, who was later taken into court, convicted, fined and sent to the penitentiary. If it had been necessary to rely on court procedure alone, the promoter of this eye water scheme could have delayed action in the courts under one pretext or another for several years and separated more people from their money. In fact a case was unearthed where a promoter of a scheme was put in jail and conducted the business from his new environment some time before the case was actually brought to trial. It can easily be seen how necessary it is for some one to be clothed with power to act in matters of this character without undue delay.

No good citizen wants Uncle Sam to be a party to a swindling scheme or assist in promoting a fraud on the unfortunate public. If the postal authorities find that certain parties are taking unfair advantage of their fellowmen, by the use of the mails, they should have the power to intervene, and do it before undue harm or loss of money results or the public health is jeopardized. Admitting the great need of the Government protecting some of its citizens against the machinations of the unscrupulous, we must not forget the warning of a learned State Supreme Court Jurist expressed in the following words: "Good men in good times should beware of setting bad precedents for bad men in bad times."

## EFFICIENT UNDERPAID GOVERNMENT EMPLOYEES.

One of the diversions of those attacking the work is to reflect on the subordinates as inefficient, improperly qualified and underpaid. It is parallel to attacking witnesses by attorneys defending a poor proposition.

It is a well-recognized fact that it is physically and mentally impossible for any administrative officer to personally pass upon the details of all the questions that arise in a Government department. It is necessary for subordinates to review and consider many cases and present the findings to a superior officer for final decision. It is not believed that there will be much disagreement on the criticism that the work is done by underpaid employees. In fact the statement is ventured without much probability of its being controverted, that all Government employees in responsible positions are underpaid. This, however, is no reflection on the ability or efficiency of such employees. On the contrary the postal workers with whom the writer has been brought in contact are active, efficient and much overburdened.

The field covered is very broad and diversified. In the writer's judgment, based on experience, there is no attorney or group of attorneys so well qualified

or so versatile that he or they could possibly handle, without assistance, all lines of work that come before the office dealing with fraud. Many of the cases brought up require expert knowledge along various lines; for example, medical, chemical, nutritional, bacteriological, engineering, etc. In the medical field the advice of physicians in the Army, Public Health Service, and other branches of the Government is obtained. These physicians and civilian physicians are often called in to testify. In case of alleged fuel savers, experienced workers of the Government who have devoted many years to the study of fuels are called on to give the facts. If electricity, physics, radium and other factors are involved, workers qualified in these lines are called on to give information which will enable the Postmaster General to take proper action. In the case of adulterated or misbranded foods or drugs, or other articles of commerce, experts in these subjects are consulted.

It would seem that the foregoing emphasizes the need of positive and definite action in order to protect the public against the despoiler through the use of the mails, but it may be desirable to give a few more actual cases.

Under the Food and Drugs Act a case was developed against a product represented to cure cancer, surely and permanently, on account of its radio-active quality. An examination of the medicine showed that it did not contain any more radio-activity than did ordinary dishwater. The product did contain some quinine sulphate which rendered the liquid fluorescent and thus accentuated the deception. While this case was in process of evolution, a post office inspector was obtaining evidence regarding the misuse of the mails in connection with the same article. In due time the promoter was cited to show cause why a fraud order should not be issued against the business. The hearing lasted a number of days and trunks full of testimonials were submitted as evidence of cures. The defendant testified that approximately \$70,000 was taken in during the year just preceding the hearing. It was clearly established that the business was inherently fraudulent. The further use of the mails was denied. The attorney in this case told the writer that a pool of \$50,000 had been raised to contest the Government under the Food and Drugs Act, but that this fraud order procedure would effectively put a stop to any further contention in the matter.

The unfortunate consumptive has for years been the prey of unscrupulous promoters of alleged consumption cures. The disease fastens itself on us unawares. Thousands of human beings suffer from its ravages. It is responsible for one death in every nine. Persons in normal health rarely take the disease. The germs, however, strike us in unguarded moments, at times when we abuse our bodies, when we are subject to great strains, mental and physical; at times when our bodies are not well nourished or the general bodily resistance is impaired. The economic loss to the United States is estimated from 150 to 200 million dollars annually. Fortunately consumption, tuberculosis of the lungs, can be recognized in its early stages, when there is little damage, a small degree of poisoning, and every prospect for complete recovery by proper treatment.

All delays in early recognizing the disease and instituting proper treatment are menaces to public health. The prospects of complete restoration to health in the early stages of the disease by proper treatment are excellent. It is a well recognized fact that drugs do not possess any remedial or curative value in the treat-

ment of this disease. In advanced cases the suffering and distressing cough may be alleviated and the patient comforted by the use of opiates or similar drugs.

The various tuberculosis remedies are alleged to be curative because of certain agents contained therein. Among these may be mentioned, pine forest products, turpentine among others; material derived from Australian eucalyptus trees; extracts of cod liver oil; balsamic substances; iodine compounds; mysterious herbs discovered by some Indian or Missionary; iron ore of Germany discovered by an old German doctor; sulphurous acid; lime products; creosote; opium, morphine and heroine until recently; phosphorous compounds; copper compounds; tar and aromatic oils applied as plasters; inhaling gaseous ammonium chloride, sulphur match fumes, etc.

One of these "cures" was first exploited through the mails and brought to the attention of the afflicted by means of advertisements appearing in farming magazines as early as 1856, and they are still with us, notwithstanding the fact that many have gone out of business either by way of fraud orders or agreeing to discontinue the business, or because of fear of action by the postal authorities. This shows how exceedingly difficult it is to eradicate even fraudulent schemes that are destructive to health and life and therefore contrary to public policy. What untold harm these preparations have done during these many years of existence, economically and otherwise, no one could possibly conjecture.

"Morphine cures" were very common 15 years ago. The unfortunate addicts had little or no knowledge as to their habit-forming nature. Later investigations showed that the various alleged cures contained the very drug or drugs which enslaved the unfortunate. Thus instead of curing the habitué, the tendency was to more securely victimize the victim. In some cases an effort seems to have been made to reduce the amount of morphine to a point where the patient could be comfortable, but would constantly be in need of the medicine. The treatment would then be needed by the addict and furnished indefinitely. One promoter boastfully informed the writer that he had on his mailing list the names of not less than 100,000 patients. A withdrawal of the privileges of the mails stopped a number of these concerns.

Very alluring advertisements were appearing in the press claiming that a certain drug had been found that would increase the weight of thin and emaciated persons at the rate of a pound a day. It was a mail order proposition. A post office inspector entered into correspondence with the company alleging to make thin people fat. The investigation showed that the scheme embodied the elements of fraud. The facts were presented to a grand jury and an indictment resulted under the federal criminal laws. It was nearly a year after the case was filed in court before it came to trial. The trial lasted 12 weeks. It cost the Government approximately \$100,000. The defendants were convicted by jury trial and fined \$30,000, but what is a fine of \$30,000 on a business having, according to court records in the case, a gross income of \$500,000 a year, and this amount of money was practically abstracted from the people while the case was in court. The evidence developed in court showed that the scheme was conceived in fraud, nurtured in fraud and perpetrated in fraud. The testimony showed that the tablets contained in the \$1.00 treatment cost the company less than 2½ cents, and that they had nothing in them of a fat-making nature. In fact, these tablets did not have as

much fat-producing value as the doctor's proverbial bread pills. The testimony also developed the fact that some of their eminent doctors never existed; that the leading hospital used in the advertisements was a pure fabrication; that the foreign medals were phony; that the prominent food experts claimed to be the originators and sponsors for the tablets were either myths or failed to materialize and that the original formula of the tablets, the great and wonderful medical discovery, the beginning of the business, was born during an interview between a pharmacist and one of the defendants, neither one of whom was a physician or knew of any drug or mixture of drugs that possessed fat-making elements.

Notwithstanding the fact that the Government was put to a tremendous expense in this case and the defendants fined \$30,000, there was nothing whatever to prevent these defendants or others from continuing the business of fleecing the public in the same old way. In this case the business was effectively terminated by the issuing of a fraud order a short time after the sentence of the court was pronounced.

But even drastic action of this character does not deter some of these rascals from coming back. Apparently quackery dies hard. Here is an instance: A fraud order was issued against a business. The promoter later was taken into court, convicted by jury trial and a penitentiary sentence imposed. After serving the sentence, he made application to the Postmaster General to revoke the fraud order so that he might continue the business.

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## PHARMACY AND MEDICINE OF CHARLES KINGSLEY.\*

BY A. W. LINTON.

To most Americans the name of Charles Kingsley will recall pleasant hours spent in the perusal of the striking passages of his great historical novels. What boy has not been spellbound by *Westward Ho!* that thrilling tale of adventure and of glorious fights by land and sea? Perhaps no work of fiction depicts more vividly the brave days of Queen Elizabeth when Englishmen in their little vessels lay in wait for Spanish treasure ships, and sacked the cities of the Spanish Main. *Hereward the Wake*, although not so well known as *Westward Ho!*, is a splendid story dealing with the last struggles between English and Norman in the period following the Conquest. Its scenes are laid in the Fen Country of eastern England, where the last bands of English to hold out against the invader took refuge on the Isle of Ely, and, protected by the almost impenetrable marshes, for years held the conquerors at bay. *Hypatia* is a story of Alexandria and the Christian church of the fifth century.

Kingsley's literary work was by no means confined to fiction. He was a most versatile author. His published works include poems, sermons, popular science, collections of addresses on social and sanitary subjects, travel and de-

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\* Read before Section on Historical Pharmacy, City of Washington meeting, 1920.—This is the third of a series of articles by the same author, dealing with the Pharmacy and Medicine of the masters of fiction. The other papers which have been published are: "Pharmacy and Medicine of Sir Walter Scott," JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, Vol. VI, No. 2, February 1917; "Pharmacy and Medicine of George Eliot," *Ibid.*, Vol. VIII, No. 12, December 1919.