lowing taken from the *Pharmazeutische Zeitung* (Vol. xlii, 1897, p. 770) may be taken as the type:

Captol	1.0
Chloral hydrate	1.0
Acid, tartaric	1.0
Castor oil	0.50
Perfume	q. s.
Alcohol (65 per cent.) q. s. ad.....	100.0

In addition to these ingredients some of the suggested formulas contain resorcin and salicylic acid. It is stated in Hager's "*Handbuch der Pharmazeutischen Praxis*," *Ergänzungsband*, p. 203, that a "hair water" similar to the original may be made according to the following formula:

B	
Chloral hydrate	2.0
Acid tannic	1.0
Acid tartaric	1.0
Oil ricini	0.25
Spiritus	65.00
Aqu. dest.	35.00
Essentiae odor. Viole	5.00

An examination of the patent files showed that in 1897 a German patent was granted to the *Farbenfabriken vorm. Friedr. Bayer & Co.* (D. R. P. 98,272) for a process by which it was claimed that chloral and tannin could be combined. The new "synthetic" is described as a grayish-brown, fine, amorphous powder which is slightly soluble in cold water but readily soluble in alcohol.

Other than the above, the only information that could be obtained concerning the composition of this alleged tannin-chloral compound is found in the medical and pharmaceutical journals of about ten years ago. There it is stated that "Captol" is a condensation product of chloral and tannin, an assertion evidently based on the claims made in the patent specifications. While such statements have appeared in medical and pharmaceutical publications, an examination of price lists shows that at present there is apparently no such compound for sale on the American market. An order for "Captol," without other qualifications, placed with a large wholesale-drug firm brought only the proprietary liquid preparation of that name. Chemical literature apparently shows no other record of such a compound having been made and studied either by the *Farbenfabriken of Elberfeld Co.*, or by others. In reply to an inquiry for information concerning this alleged synthetic the *Farbenfabriken of Elberfeld Co.*, New York, the American agents for *Farbenfabriken, vorm. Friedr. Bayer & Co.*, stated that they did not handle it but referred to Müllhens & Kropff, the exploiters of "Captol" hair tonic. An inquiry for information addressed to this company and accompanied by a request for a specimen of the compound which is supposed to form the basis of the preparation, elicited no reply.

Since the tannin-chloral compound (if there be such) could not be procured on the American market, specimens of the hair tonic of the same name—put up in typical "patent medicine" form—were purchased and were examined in the Association laboratory.

The material examined was a dark, amber-brown liquid, smelling strongly of alcohol and eau de cologne. Qualitative tests indicated the presence of alcohol, tannic acid, chloral, tartaric acid and traces of a fixed oil, perfume and coloring matter. No resorcin or salicylic acid was found. Quantitative analysis showed that the preparation contains nearly 4 grains of chloral hydrate and about 6 grains of tannic acid in each fluid ounce, an amount of each substance greater than could possibly be present in 3 grains of "Captol" were such a compound present. Hence considerable quantities of chloral and tannin must be present in the free state. Since "Captol" (the "synthetic") is claimed to possess "neither the unpleasant secondary effects of tannin nor the particular irritating action . . . of Chloral" its employment (as claimed) in a mixture containing both free tannin and chloral would be irrational and unscientific.

Analysis¹ indicated that the composition of "Captol" is essentially as follows:

1. The analysis in detail will be sent on receipt of a stamped, addressed envelope; it will also be published in the annual report of the Chemical Laboratory.

Chloral hydrate	0.83 gm. in 100 c.c. (3.8 gr. per fl. oz.)
Tannic acid	1.333 gm. in 100 c.c.
Tartaric acid	0.81 gm. in 100 c.c.
Alcohol (U. S. P.)	64.44 c.c. in 100 c.c.
Perfume	
Coloring matter	
Fixed oil (probably castor oil)	a. a., a trace
Water (by difference) to make	100 c.c.

No evidence was obtained that the tannin and chloral were combined in any way as the usual qualitative reactions for each substance were obtained. Bearing in mind the reluctance of the manufacturers to furnish information concerning the product, the dearth of reliable information in the literature concerning the tannin-chloral compound—Captol—and the negative evidence obtained by the examination of the material as it appears on the market, it seems very probable that no such compound of tannin and chloral is present and that the proprietary hair water "Captol" is nothing more than an aqueous-alcoholic solution of chloral hydrate, tartaric acid and tannin, with a little fixed oil, coloring matter and perfume.

Correspondence

Registration of Foreign Physicians

To the Editor: The comments on my letter in *THE JOURNAL*, August 6, are interesting. The correspondent of August 20 realizes the importance of legal regulation of registration of foreigners. The one who wrote August 27 is a Canadian and probably has some friends and countrymen who wish to register in the United States before long. He does injustice to the American physician. It is true that a great many old practitioners received complimentary recognition when state laws were first enacted. They could not well have been turned down, but to-day our recognized colleges are equal to those of other countries, and in some instances superior, as was shown by Dr. Honeij in *THE JOURNAL*, September 3, and our state examinations are so thorough that only well qualified men can pass. This, however, is not the fundamental question. We want recognition in other countries, which we will never have so long as we admit foreigners to our state examinations without requiring equal rights for our graduates from them. As I said in my first letter, why should foreign countries admit our graduates when we give them all the rights they could desire? If we should keep foreigners out until those countries decide to reciprocate with us, it would not be long before American physicians would be recognized the world over, and then we would be glad to welcome our friends from abroad and we would feel that we were their equals wherever we met them, at home and abroad.

A. J. HOENES, Denison, Iowa.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

HEALTH OFFICERS AND WATER PURIFICATION

To the Editor:—I was much interested in the editorial on "Purification of Water" and on the necessity of having efficient health officers. Please direct me to the most up-to-date and practical filter for a town of about 10,000, and also give the method of coagulation and mechanical filtration.

E. B. HARDIN, Florence, Ala.

ANSWER.—Probably the most useful book along this line is Hazen's "Clean Water and How to Get It," published by John Wiley and Sons, New York.

It is impossible to make recommendations for a specific local situation without full knowledge of the local conditions. Circumstances vary so greatly that a method or form of apparatus that might be very satisfactory in one locality would not be desirable in another. We would suggest that advice be obtained from some expert sanitary engineer, who can investigate local conditions and give an expert judgment. Names of competent firms can be obtained from either the *Engineering News* or the *Engineering Record*, New York City.