

the organism isolated from the lesions of animals by Wright,¹⁹ Wolff and Israel²⁰ are in many respects similar to those isolated from the *Myricas* and described by the writer, he would regard the organism as a parasite and suggest its possible pathogenic relation to such animals.

The *Actinomyces* not only confines itself to the cortex of the tubercular roots, it later works its way into the tracheæ of these structures, passes into the pitted vessels of the main roots, thence into those of the stems, and, conveyed by the transpiration stream gradually upward, is carried through the axes of catkins so as finally to reach the flowers, bracts, and fruits. In these it confines its existence to the parts corresponding to the mediocortex of the root tubercles, namely, the mesophyll and outer mesocarp regions respectively.

The writer having isolated the organism in pure culture from the lesion produced by it on the seedling tubercles, hereby assigns to it the name *Actinomyces Myricarum*.

Actinomyces Myricarum has been observed by the writer in its most luxuriant form in the cells of the middle fruit wall of the various species studied. Here it can be recognized best in thin hand sections stained with safranin and methyl-green in the form of rosettes almost filling the cell lumina. When the fruits fall to the ground and subsequently break open their walls, the organism probably makes its way from the infected cells into the soil where it spreads through wide areas infecting the roots and stems of other *Myricas* and producing characteristic lesions.

LITERATURE CONSULTED.

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15. Shibata: Die Wurzelschwellungen von *Alnus* und *Myrica* in Cytologische Studien über die endotrophen Mykorrhizen, Jahrbücher, für wissenschaftliche Botanik, Bd. 37, p. 668-670.
16. Harshberger: The form and structure of the mycodomatia of *M. cerifera*, Proc. Acad. Nat. Sci of Phila., 55: 352-361.
17. Arzberger: The fungus root tubercles of *Ceanothus Americana*, *Elaeagnus Argentea* and *Myrica cerifera*, Missouri Botanical Garden Report, p. 82 (1910).
18. Jordan: General Bacteriology, p. 404-413 (1908).
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THE AVERAGE COST OF PRESCRIPTIONS.

The following schedule was prepared by F. W. Nitardy and is compiled from answers to *Question 15*, of the Colorado Pharmaceutical Association, presenting the following interrogatories: "Have you ever taken the time to calculate the average cost of prescriptions and the average price received? Can you furnish us with figures, giving:

- A—Cost of materials used in filling 1,000 consecutive prescriptions?
- B—Estimate of the number of hours of time required to fill them?
- C—Cost of containers, labels, corks and other incidentals necessary?

D—Estimate of overhead expense (excluding clerk hire), such as light, rent, heat, telephone, insurance, interest on investment, taxes, waste, etc., on your prescription department for a period covering the number of days in which you will fill 1,000 prescriptions?

E—The price received for the same 1,000 prescriptions?

The answers scheduled are:

1000 Prescriptions	A	B	C	D	E
Est. of hours required for compounding	200	250		164	212½
Cost of materials.....	\$144.14	\$165.01	\$134.50	\$140.00	\$210.00
Cost of time (estimate).....	60.00	100.00	43.00	82.00†	85.00†
Cost of containers.....	25.00*	23.36	36.00	29.75	25.00*
Overhead expense (estimate).....	49.35	66.43	36.50	122.96	148.25
Total cost	278.49	354.80	250.00	374.71	468.25
Price received	493.55	511.00	445.50	500.00	525.00
Cost	278.49	354.80	250.00	374.71	468.25
Gross profit	215.06	156.20	195.50	125.29	56.75
Percent gross profit on selling price.....	43.5	30.56	42.8	25.	10.8

1000 Prescriptions	F	G	H	I	J	Average
Est. of hours required for comp. 184		208	250	225	245	215½
Cost of materials.....	\$217.20	\$217.60	\$188.37	\$198.87	\$215.00	\$183.07
Cost of time (estimate).....	73.60†	83.20†	100.00†	90.00†	98.00	81.48
Cost of containers.....	25.00*	25.00*	23.36	25.00*	30.00	26.75
Overhead expense (estimate).....	75.00	35.51	66.43	75.00	80.00	75.54
Total cost	390.80	361.31	378.16	388.87	423.00	366.84
Price received	553.00	507.00	511.00	500.00	500.00	504.60
Cost	390.80	361.31	378.16	388.87	423.00	366.84
Gross profit	162.20	145.69	133.84	111.13	77.00	137.76
Percent gross profit on selling price	29.33	28.73	26.19	22.22	15.4	27.3

He follows these statements by an analysis of the reports and asks pharmacists to think, investigate and act in order to place professional pharmaceutical service on a higher plane.

WHAT DO THE ABOVE FIGURES SHOW?

Briefly, that the average cost of a prescription is 36¾ cents, bringing an average retail price of 50½ cents, or an average gross profit of 13¾ cents, or 27⅓ cents on every dollar taken in on prescriptions.

What is taken out of the gross profit before it becomes net profit?

If you will look at the cost items you will see that the cost shown in the above figures only brings the prescription to the point of furnishing you a finished and salable piece of merchandise, making it equal to any other merchandise you have for sale. The only point in which it has the advantage over other merchandise is its immediate turnover.

To make myself a little more clear let us assume that you are subletting your Prescription Department to a second party who furnishes everything included in the above cost, but wants your service as manager and your clerk's time to wait on the customer, that is, take in the prescription and hand out the finished prod-

† No cost estimate was furnished in these papers. The cost was based at 40c an hour, which is equivalent to \$100.00 per month salary on a 60 hours per week schedule, making no allowance for waste of time, care of stock, etc.

* No cost of containers were given in these papers. The sum of \$25.00 was inserted by Mr. Nitardy as a conservative estimate.

ucts. You take in the money, and assume all the responsibility, including that of accounts and collections. What would it cost you to give this service? I doubt that it could be handled on less than 25%, it might take 30. But whatever your estimate is, subtract it from 27 $\frac{1}{3}$ %, the average gross profit on prescriptions, and you have *your net profit*.

Is the result satisfactory?

Why should pharmacists place such a low value on their service? Or must we look elsewhere for the reason for this condition?

The concensus of opinion at the Convention in Boulder was that druggists as a rule do not know what part, if any, of the money taken in on prescriptions is profit, for considerable time is required to obtain figures like those shown above. No doubt that is the real reason.

You are entitled to a profit on the merchandise sold through the prescriptions as well as to a small fee for your professional service, knowledge and responsibility, and I believe it is worth your while to investigate whether or not you are getting what you should and what the public expects you to get.

The Pharmacist is a public servant carrying grave responsibilities, and public safety demands that he be compensated for his service.

Think—Investigate—and then ACT.

SOLUTIONS.*

J. ROEMER.

In a consideration of the subject relating to solutions, whether applying to such as are used in pharmacy for medication or to such as are used in the applied sciences as well as natural solutions, due observance should be directed to the fundamental factors which govern results obtained or sought.

The meaning of the word "Solution" as applied in pharmacy is restricted and in this relation the Pharmacopœia further restricts its application by designating such aqueous preparations only without sugar in which the substances acted upon are wholly soluble in water and in this by again further excluding volatile and gaseous substances.

This cannot be considered broad enough in scope of meaning to obtain a clear idea when we use the word solution, for as such it is applied in meaning to far greater extent and comprehensive intent.

In its widest latitude we understand a solution to be homogeneous mixture of two or more substances and from this definition can encompass the conditions of

* This contribution was intended for the Section on Practical Pharmacy and Dispensing, but reached Chairman Osseward after he had returned from the convention. We print this paper not only for its value, but to honor a man who served the Association and was a strong support of the Journal. Mr. Roemer was President of the New York Branch of the American Pharmaceutical Association. Notice of his demise will be found in this issue.