### BIBLIOGRAPHY OF PHARMACEUTICAL RESEARCH

Compiled by A. G. DuMez, Reporter on the Progress of Pharmacy.

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#### A STUDY IN THE EXTRACTION OF NUX VOMICA.\*

BY J. A. PIERCE.

It is a well-recognized fact that Nux Vomica is one of the most difficult drugs to extract thoroughly and economically.

Attention was drawn to a suggestion that the addition of 1% acetic acid to the present U. S. P. menstruum for tincture would aid materially in the rapidity of extraction, thus diminishing the amount of menstruum necessary to exhaust.

For the purpose of investigating the value of the modified menstruum over the present U. S. P. menstruum two parallel percolations were conducted. Five hundred grams of the same lot of drug were moistened, packed, macerated and percolated: using the process as described for Tincture of Nux Vomica, U. S. P. IX.

In undertaking this work, particularly on Tincture of Nux Vomica, it was thought that possibly the use of acetic acid might retard the usual fat extraction always obtained in Nux Vomica preparations, and that the use of this menstruum could be extended to Extract of Nux Vomica.

With this purpose in mind, the percentage of oil or fats obtained by each of the aforementioned methods was determined and found as follows:

U. S. P. IX menstruum	2.93%
U. S. P. IX menstruum plus acetic acid 1%	2.22%

When 1667 cc. of percolate from each percolator had been obtained, an assay for total alkaloids was made with results as follows:

U. S. P. menstruum (IX)	0.276 Gm. per 100 cc.
U. S. P. menstruum (IX) plus acetic acid	0.290 Gm. per 100 cc.

Continuing the percolation of each, it was found that for complete exhaustion by Mayer's reagent test; it was necessary to use:

Of U. S. P. IX menstruum	7054 cc.
Of U.S. P. IX menetrum plus acetic acid	3857 cc

Portions of the percolates were worked up into extracts, fluidextracts, and tinctures. No difference was found between the products prepared by the U. S. P. and the modified procedures.

<sup>\*</sup> Section on Practical Pharmacy and Dispensing, A. Ph. A., Buffalo meeting, 1924.