

**PATHFINDER PHYSIOLOGY NO. 2.
HYGIENE FOR YOUNG
PEOPLE: ADAPTED TO
INTERMEDIATE CLASSES AND
COMMON SCHOOLS**

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Pathfinder Physiology No. 2. Hygiene for Young People: Adapted to Intermediate Classes and Common Schools by A. B. Palmer

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A. B. PALMER

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HYGIENE

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INTERMEDIATE CLASSES AND COMMON SCHOOLS

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Enough on the subject of Hygiene has been introduced to give a general knowledge of the laws of health; while, as the spirit and the letter of the laws direct, especial reference has been made to the effects of alcoholic drinks and other narcotics.

Eminent physicians and teachers have contributed helpful suggestions in the preparation of this work. Among the former are Prof. Palmer, M.D., LL.D., Dean of the Medical Department of Michigan University; Dr. Ezra M. Hunt, A.M., M.D., President of the section of the American Medical Association on State Medicine and Public Hygiene, Vice-President of the American Public Health Association, etc., and author of "Alcohol as a Food and Medicine."

Of the teachers who have helped in shaping these truths into a suitable form for young minds, first mention should be made of Miss Alice M. Guernsey, High School, Wareham, Mass.

The aid of Dr. Mary V. Lee, of the Oswego, N. Y., Normal School; Prof. Jones, Supt. of Public Instruction, Erie, Penn.; D. B. Hagar, Ph.D. Principal of the State Normal School, Salem, Mass.; Mr. E. P. Church, Supt. of Public Instruction, Greenville, Mich., and other practical instructors, is also gratefully recognized by the editor.

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INTRODUCTION.

I have examined the manuscript of this book, and find it covering more matter that I think should be taught in the elementary lessons on life and health in the schools, than I have found in the other works, with similar objects, which I have had occasion to examine.

It is free from the errors which have been noticed and objected to in several other works on this subject designed for school use.

I also think it free from such overstatements as are likely to be produced by ardent zeal.

If all the facts contained in this little work are firmly lodged in the minds of the pupils in our public schools throughout the country, an immense work for good will be accomplished.

Being profoundly impressed with the enormous evils to our race produced by the habitual use of narcotics, including alcohol, opium, and tobacco, I can but rejoice at the promising efforts to make obligatory in the public schools the teaching of Physiology and Hygiene, with special reference to these

narcotics, and I know of no work which is a better introduction to the subject than the present text-book.

Of the diseases, the degeneracy, the vices, and the general ill-being produced by the alcohol habit, all observers must be aware.

The evils of the opium habit are scarcely less, in proportion to its more limited extent, and the habit is, if possible, even less likely to be broken up when once established.

The tobacco habit, though less disastrous to individuals and in its moral and social effects upon communities, still, by its greater prevalence, is doing an amount of mischief, especially with boys, which none so fully know as those physicians who have given special attention to the subject.

The influence which indulgence in one narcotic has upon the resort to others, should be more fully recognized, and the great importance of abstinence from all of them will, by these teachings, it is hoped, be more fully understood and appreciated.

It therefore gives me great pleasure to say this much, and in this place, in favor of the objects and the execution of this work, and in commendation of the efforts of those who have had the labor of its preparation.

A. B. PALMER.

ANN ARBOR, Sept. 1, 1884.

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FIRST WORDS.

“**K** NOW thyself,” is old and good advice. As the body is an important part of a person, we are only obeying this counsel when we learn how it is built, how it lives, and what is good or bad for its health.

Because many people are ignorant of the true nature of alcoholic drinks and other poisons, the law in some parts of our country requires the pupils in the public schools to study the human body and the effects of these drugs upon it.

From these lessons you will learn, first, what these drugs are. That you may understand what they will do to those who use them, you must then learn about the human body and how to take care of it.

When you see what alcohol, tobacco, and opium, do to its many wonderful parts, and what trouble and sorrow they cause, you will know why it is dangerous to use them.

CHAPTER I.

ALCOHOL.

ALCOHOL is a colorless liquid with a stinging taste; it burns without soot, giving little light, but great heat. It is lighter than water, and can not be frozen.

It is used to dissolve gums, resins, and oils; to make smokeless flames; to take from leaves, roots, barks, and seeds, materials for making perfumes and medicines; and to keep dead bodies from decaying.

People do not usually drink clear alcohol (*alcohol*). Rum, whiskey, wine, cider, gin, brandy, beer, etc., are water and alcohol with different flavors. Many million gallons of alcohol in these liquors are drunk every year by the people of this country.

ORIGIN OF ALCOHOL.

Water forms the larger part of grape, apple, and other fruit and plant juices. Green fruits contain much starch; as they ripen