

BY CLAYTON DEKORNE

## Mind and Hand

**Charles H. Ham**, an appointed appraiser in Chicago, one-time editor of the *Chicago Tribune*, and an outspoken advocate for education reform, founded in Chicago a School of Manual Training. It wasn't the only school of its kind. The Manual Training movement had a strong foothold throughout the U.S. The North Bennet Street School in Boston is one example that survives today, though not as a public school for general education as some 300 manual training schools across the U.S. once were. Charles Ham stands out in the movement for his book, *Mind and Hand*, in which he presented the Ideal School founded on learning industrial arts not as a vocational preparation, per se, but as the foundation for the intellectual and moral development of children. Here are some excerpts in which he sets out to prove that work with the hands is a necessary foundation for a sound education:

*Education and civilization are convertible terms; for civilization is the art of rendering life agreeable; and things—art products—constitute the basis of all the comforts and elegancies of civilized life. The great gulf between the savage and the civilized human is spanned by the seven hand tools [the ax, the saw, the hammer, the file, the drill, the lathe and the plane]; and the modern machine shop is a powered aggregation of these tools ... Tools, then, constitute the great civilizing agency of the world. Carlyle well said of humans: Without tools he is nothing, with tools he is all!"*

*... The training of the hand reacts upon the mind, inciting it to excursions into the realm of science in search of the hidden laws and principles governing mate-*

*rials and methods to be utilized through the arts in useful and beautiful things.*

*... The error in prevailing methods of education consists in striving to reach the concrete by way of the abstract, whereas we should pursue a diametrically opposite course.*

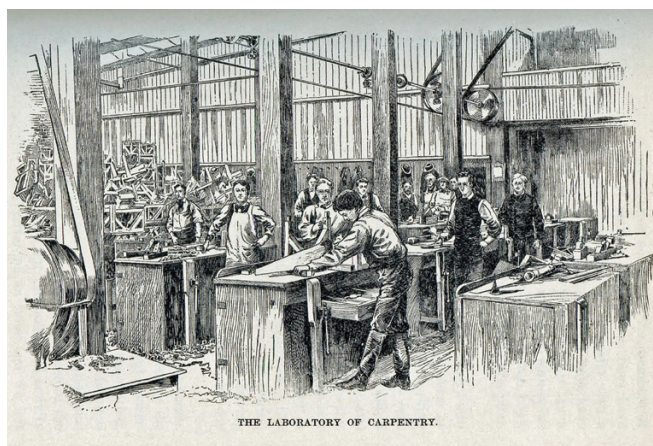
*... The philosophy of manual training, the rationale of the new education, is the union of thought and action. Theoretical knowledge is incomplete. An exclusively mental exercise merely teaches the pupil how to think, while the essential complement of thought is action ... Like thought and action, the mind and hand complement each other. They are natural allies; the mind speculates, the hand tests the speculations of the mind by experiment. The hand thus explodes the errors of the mind ... It is easy to juggle with words—to make the worse appear the better reason—but a lie in the concrete is always hideous!*

*... The hand becomes the guide as well as the agent of the mind; it constantly appeals to the mind, by its acts, to hew to the line and let the chips fly where they may.*

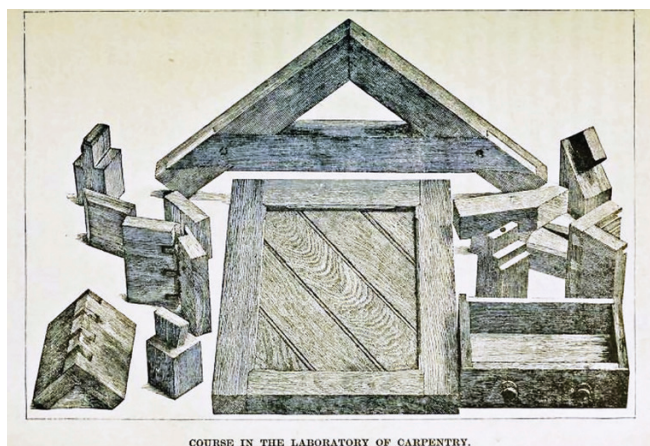
*... It will be a great day for man—the day that ushers in the dawn of a more sober view of life, the day that inaugurates the era of mastership of things in place of mastership of words.*

*... The scientist and the artisan are the twin ministers of human progress. It is in the works of their hands that human history is found. All other records are inaccurate; in all other accounts there is room for deception; but the thing made is the truth.*

*Mind and Hand* is available free online in the National Archives of the Library of Congress.



THE LABORATORY OF CARPENTRY.



COURSE IN THE LABORATORY OF CARPENTRY.

Among the many laboratories in Charles Ham's Ideal School, the Laboratory of Carpentry is one of several classrooms students attend each day to learn "through things instead of through signs of things." The lesson, which starts with the student's shop drawings of the object to be made, brings together the "three great powers"—observation, reflection, and action.