

A SCHOOL THAT MAKES ITS OWN TEXTBOOKS AND TOOLS

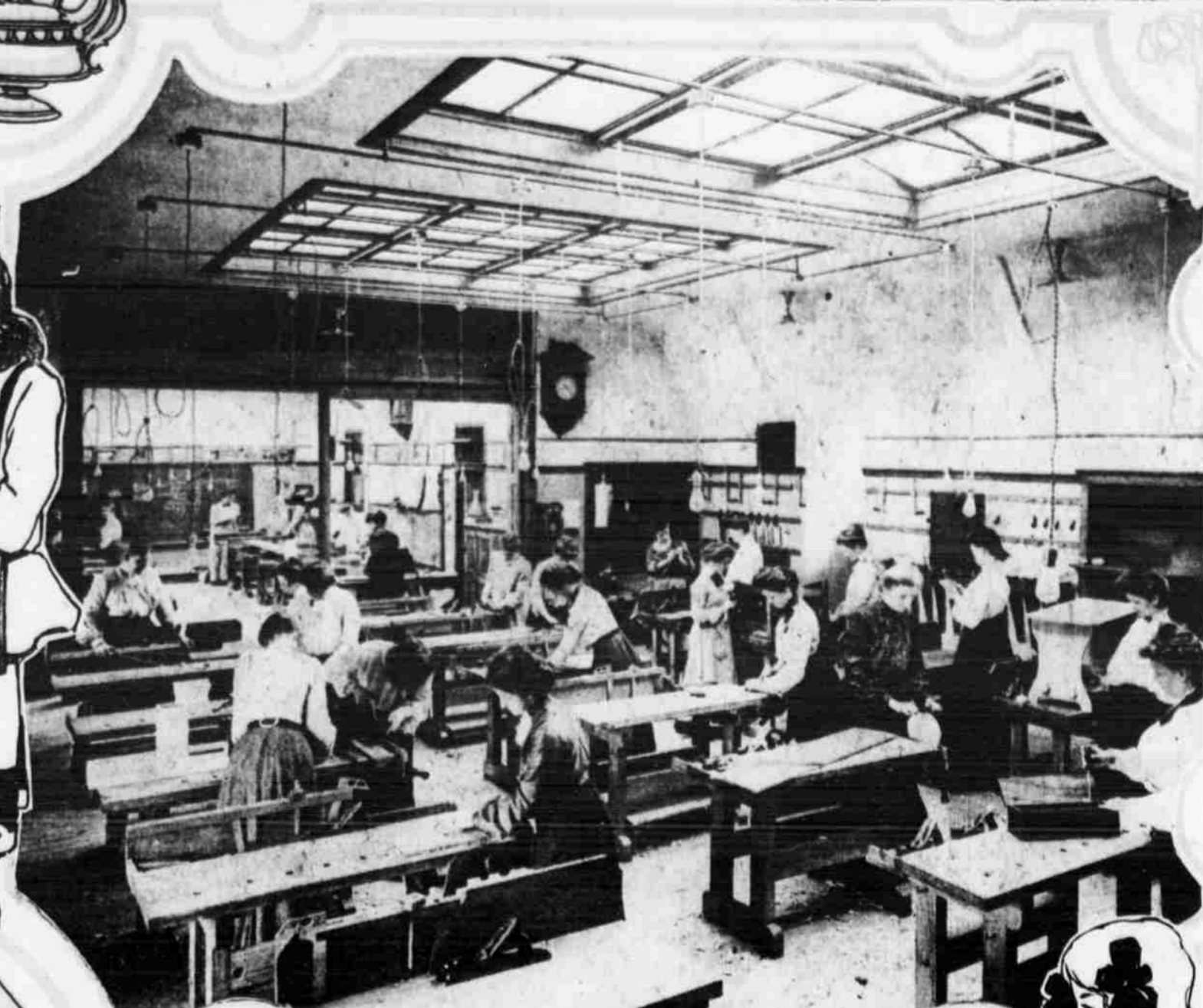


A CHILD may enter the University of Chicago at the age of 3 years and begin manual training immediately. Before he knows how to count his baby fingers he can learn how to drive a nail straight and to use a saw capably. To the truth of this work which has been done by the little boys and girls of the university's elementary school bears witness.

From the kindergarten to the eighth grade manual training is regularly a part of the school's curriculum. It is taught to all pupils, irrespective of age or sex. So attractive is this department made that older students take up the work, and both university girls and ladies of the faculty come here to make furniture and picture frames for their rooms and houses.

The hand work of the children in the first grade centers about domestic life. The home is the child's natural starting point. It is his vantage ground in the conquest of worlds unfamiliar. So he is first taught how to build a house, to paint, decorate, and furnish it. In the details of his work he is allowed to follow out his own ideas. So long as he expresses himself accurately he is allowed to express himself as freely as he will.

Many pleasant stories are told at the university about the building of these houses. One boy insisted on putting an elevator in his house, another one liked a ladder better than stairs. Several were in favor of dark attics, but one child refused to have any attic at all, because "only poor live in attics." A budding electrician brought a coil of wrapped wire



In the Carpenter Shop



First grade children making doll houses!

to school with him in order to install in his house an electric system. Another insisted on fitting up his building as a fire engine house, with the upper story as a dormitory, from which the firemen could slide down by poles into the room below.

Ponder Over Smallest Details.

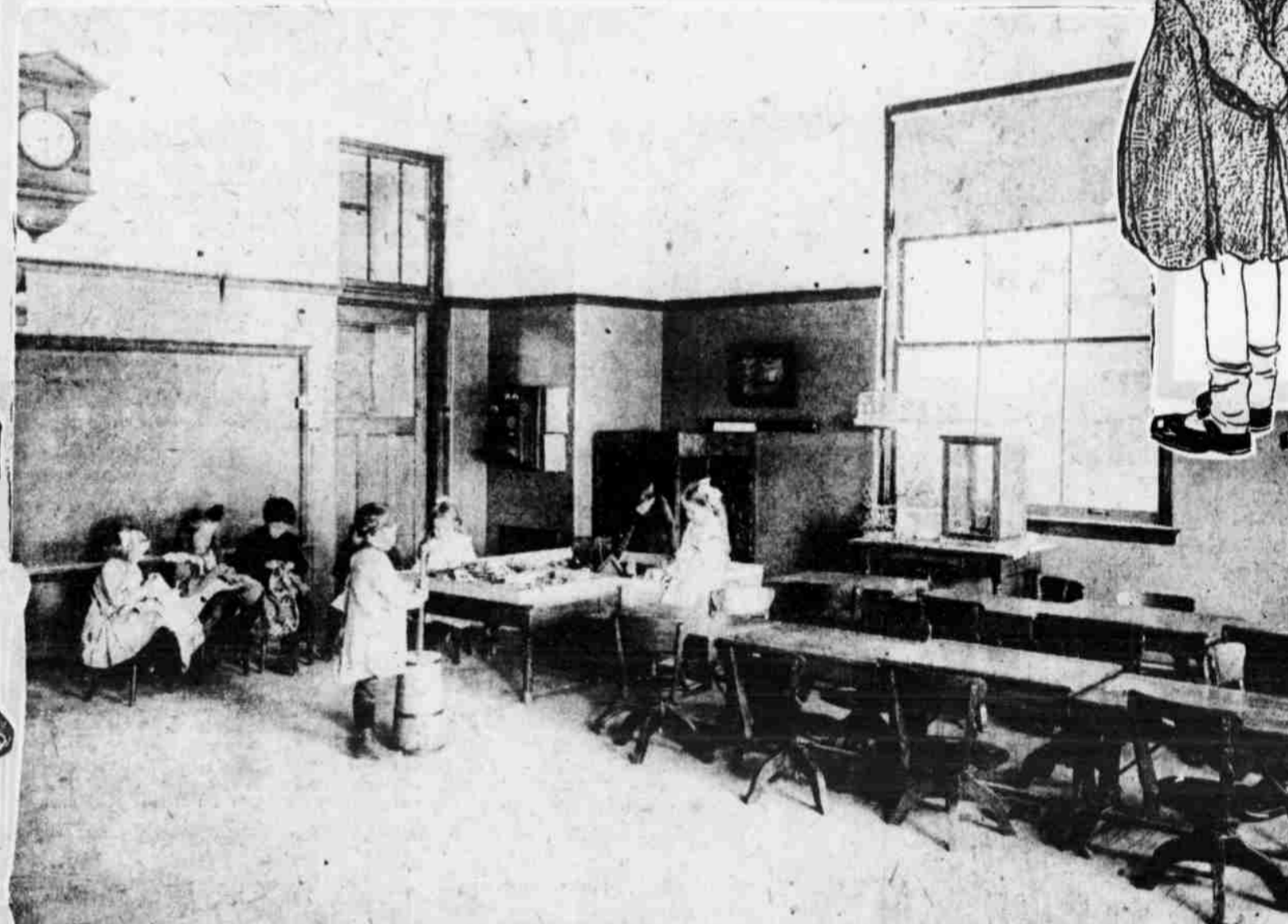
Every detail was a matter of supreme importance to the children—the shape, size, and color of the rugs that they wove, the design and coloring of the wall paper they made, the painting of the building's exterior, and the staining of the wood inside. Each one made simple wooden furniture for his own house. Some ambitious young architects insisted upon the addition of chimneys and fireplaces modeled from clay. One morning the teacher was amazed to have the children appear in a body, saying that they must have some paint for their kitchens, for "no decent kitchens were pared."

"If the children do the work themselves they learn of necessity the use of tools," says Miss Elizabeth E. Langley of the manual training department of the elementary school. "In the construction of their houses the children of the first grade made an intelligent use of the ruler, the try-square, a plane, a hammer, a crosscut saw, a keyhole saw, and an auger, and though they did not know the meaning of the word 'construction' they nevertheless had gained an honest score for a house that 'wiggled' and an honest respect for a house firm enough to sit on."

Last year the third year handwork was determined by the decision of the grade to adopt a hen. All the children set to work together to build a suitable chicken coop. By themselves they decided upon the shape and size of the house. They studied out the best way to make nests, perches, floor, and the wire fence inclosure. It was not long before they faced a serious practical difficulty. When they came to make their plans for the building they found that the simple outlines which they knew how to draw would not suffice for so large a building as they were planning. How did men draw plans for big buildings like those of the university, they pondered? They could see that the plans, like pictures, must be smaller than the buildings that they represented. But they could not see how to draw an outline so that different people working from it could make the various parts of the whole fit together. But it all seemed easy enough after they learned that an inch might be made to stand for a foot.

Make Miniature Trains of Cars.

Under the influence of an interest which was quite as genuine as this the fourth grade children built the "University of Chicago fast freight," a train of six cars, and thirty feet of track. So far as possible the children were kept to real conditions. Before making their cars they spent a day in visiting car shops; so that their cars did not seem to them like toys, but were real cars in miniature. Similarly, the seventh grade, who are making boats to illustrate methods of transportation by water, are constructing little models of



Learning to make butter



Making relief maps

the boats of various countries, and various periods.

The "community work" in this and other departments of the institution is a distinctive feature. Cooperative work ranges from the united efforts of two or three children in making the same article to the combination of a whole grade in the carrying out of the project. The more competent workmen among the boys and girls are sometimes appointed as "captains of industry," who shall supervise special portions of the work and special groups of workers. In this community work the children take what one instructor calls—"a kind of intelligible and justifiable civic pride." Each one knows that his work is a contribution to the reputation of his room, and that it stands and falls in fair competition with the work of his fellows.

The same ideas of reality, interest, and sympathy are the foundation of this whole educational system. The home and all that pertains thereto, the community life, and the child's relation to it, furnish a practical basis for the work.

In the first grade, for instance, food supplies and the industries relating to them, comprise one of the subjects studied. There are no text books. The children are expected to learn from experience. In October of last year plans were made for a farm. The children desired to have a house, a barn, a milkhouse, and a corn crib, all to be made of wood, and to be arranged upon a sand table in the schoolroom. Presently they added two fences, two wagons, bridges for the stream, and some improvements upon both house and barn. One youngster suggested a "golf ground" as desirable. After the buildings were all laid out the children molded animals from clay for meadows and barn yard.

Reproducing Colonial Environment.

In the same way the fourth grade studied the early colonial life of Virginia from a representation which they made, with cardboard, clay, and sticks, of the city of Jamestown and the surrounding country. They built also an Indian village, using birch bark, cardboard, sticks, and raffa. And finally they constructed a colonial house of that locality and period. Each child in the grade had his own part in the building, which had six rooms, and an attic, hardwood floors, fireplaces, outlying houses, and slave quarters. The furniture was made of paper to the definite scale of an inch to a foot.

Thus, throughout the school the children make their own tools, apparatus, and text books. The first grade pupils make dictionaries of new words they learn. Higher up, geography classes model relief maps out of sand. Little gardeners construct their wheelbarrows and fashion trowels out of triangular pieces of wood, sharpened on the edges, and fitted with handles. Youthful foundrymen built their own smelting furnaces of clay. Infant potters put their pieces of earthenware into the kiln themselves.

The idea which is back of all this theory put into practice is that, though the child must be fitted for a career, he yet must have a childhood, with all the zest, the enthusiasm, the eager looking forward which is the spontaneous expression of the joy of living. In school he should be, not a mere pupil, molded from without; he should be a human being, developed from within.