graduates with positions and assist them even after dismissal from the home.

In England the cottage plan has found a fuller and wider development and adoption than in Germany, and among the many institutions which are conducted according to the cottage plan and which have been carefully described by J. S. Ward, Jr. (cf. Fifteenth Annual Report of the N. Y. Juvenile Asylum, p. 99.) one especially deserves our careful consideration, viz., The Girls Village at Ilford. This home for girls was founded by Dr. Barnardo, the father of "Nobody's Children," who during the forty years of his activity worked and provided for over 60,000 children, and is situated in a most beautiful part of Essex county. It houses 1,200 girls in nearly sixty cottages and represents the cottage plan at its very best. The cottages are substantially built and simply but tastefully decorated. They are as homelike as any private home, and are presided over by a "mother," who, as the last report states, "is usually a woman who has offered herself to our Lord in his service among the destitute children. These women, with few exceptions, neither ask nor receive any remuneration and are only accepted after having shown their fitness for the position. The relation between "mother" and orphan girl is that "of loving obedience." The girls are free and unrestrained, act naturally and are in every respect like other girls brought up by their parents. In addition to a good mental education, they also receive a splendid industrial training in housework, laundry work, dressmaking, cream and cheese making, weaving and art needlework. The industrial principle which has always been emphasized by the late Dr. Barnardo, is especially noticeable at Ilford. Every girl is taught to work and given some work to do. Each one is treated as an individual with personal characteristics of her own and is dealt with what might be reasonable to expect from each of them. It surprises, therefore, no one to learn that Dr. Barnardo's girls are in great demand and that upon leaving the beautiful home each girl finds a good, well-salaried position. Dr. Barnardo ascribed the success with which his work at Ilford has been crowned, to the change from the barrack to cottage plan and is outspokenly in favor of the latter. While there are but few nowadays who deny the justice of the

claims made for the cottage plan by its advocates, yet we cannot conclude this brief account without merely hinting at two great difficulties, which the cottage plan offers in America, viz., the securing of a larger number of good, fit assistants and the increased expenditure. These difficulties present a serious problem which, no doubt, will in good time find a proper solution.

Let us hope that ere long well-trained and well-educated men and women will devote their energies to the rearing of orphan children and that our co-religionists will become more and more alive to the necessity of *generously* discharging their debt to children bereaved of fathers and mothers, so that all Jewish institutions for children will find it soon possible to introduce the cottage plan.

DISCUSSION OF "THE COTTAGE PLAN FROM THE ARCHITECTURAL POINT OF VIEW."

CHARLES H. ISRAELS, NEW YORK.

The architectural problem of the Cottage Institution is the problem of the city in miniature. All of the principles which apply to the proper planning of larger centers of population, apply equally to their smaller prototypes. For the past ten years there has been a wave of discussion in both the lay and the technical press as well as in the professional societies as to the proper architectural solution of the city plan. This discussion is the result of economic necessity; but it is demanded that the architect's answer must do more than simply meet this necessity—it must be artistically satisfying as well.

The problem of the city plan has gone beyond the realm of academic discussion and certain basic principles arrived at by all of the experts are being incorporated in the improvements now under way or in contemplation, in New York, Washington, Cleveland, Buffalo, Baltimore and San Francisco. The principles are: That the plan should be of such a character that it may be developed in any direction indefinitely along the main lines of travel. That civic or public centers should be created; thereby co-ordinating the public offices and providing the opportunity for a consistent architectural treatment of the more important structures.

That congestion is best avoided by easy and rapid circulation. That small buildings are only possible where there is no congestion, and that these principles may be best served by a departure from the rectangular plan, so common to American communities, and the adoption of a system of diagonal and radiating roadways with the result of making possible easy and rapid circulation, while at the same time providing isolated sites for structures of various types, preventing congestion and giving artistically satisfying vistas.

Each of these principles applies with equal force to the cottage community, and it is fortunate that the impetus toward the building of such institutions comes at a time when this discussion has reached a point where all of the men who have studied the problem agree as to these basic principles.

The designer of an institution has one all important advantage that does not often come to the worker for city improvements. The institution is usually planned as a reasonably consistent whole from the beginning. The planning of a city is usually the result of chance, and until it actually becomes an important center of population, the wastefulness of a haphazard method does not impress itself upon the people, and the correction of basic errors can then only be obtained at an enormous cost except when such catastrophes as those of Baltimore and San Francisco help to simplify the problem.

Accepting the three principles mentioned as axiomatic, let us see how they apply to institutional work on the cottage system.

Few institutions know at their inception exactly the form of work which they will be called upon to perform in all its details. The Boys' Industrial School, at Lancaster, Ohio, one of the oldest segregate institutions in this country, has been in process of alteration and expansion for many years in order to meet the latest expert opinion.

Even if an industrial programme is prepared with the utmost minuteness, experience and changed conditions may cause the work to be radically changed in the future and the plan of the institution should be elastic enough to meet the new demands.

Two of the most successful cottage colonies in the East, such as the Good Will Farm at Hinckley, Maine, and the new State Industrial School at Rochester, N. Y. (now under construction), go to the extreme of segregation and are primarily agricultural institutions with large tracts of territory in which formality of plan is purposely not considered; as their very segregation allows for expansion at will.

The New York Orphan Asylum, at Hastings-on-Hudson, and the Juvenile Asylum at Dobbs Ferry (now partially completed), are, in my opinion, defective in this particular, as their architectural schemes around one central court leave no room for future development along consistent architectural lines; and if the next decade should bring about as radical changes in the conduct of such colonies as has been the case during the past few years, the time may come when these institutions, at present models of their types, will find their very completeness a barrier in the way of the development necessary to keep them abreast of the most advanced ideas.

Granted that this feature should be the primary consideration, it is self-evident that a cottage institution should be planned with special reference to the following propositions:

First.—That the general scheme should be so planned with reference to the topography of the site that its future development may keep pace with the growth of the institution upon both the main and subordinate axial lines in any direction.

Second.—That all axial lines should be so adjusted as to give the greatest economy of circulation consistent with the segregation of the various classes of inmates and the ease of circulation from all points to the buildings used for congregate purposes.

Third.—That the various buildings should be disposed with proper consideration for the peculiarities of the site, their segregation, their architectural importance, their particular relations to the other buildings of the group, and the questions of water, heat supply, and sewerage disposal.

Fourth.—That the individual buildings should be planned with single eye to economy of maintenance except in the case of the cottages; where the consideration of homelike surroundings for which the cottage system stands should be given equal importance.

The experience of cities has proved that the plan which best meets these conditions is a system of rectangular, diagonal and radiating roads and paths forming a series of definitely bounded sites thereby providing the isolation so necessary for the various groups—the main buildings and those for co-ordinate work being in the middle of the composition and forming practically a civic center from which the main roads radiate while the subordinate groups are placed at the points of secondary importance formed by the intersection of the radiating roads. This scheme allows for the extension of the main or secondary roads in any direction; and these extensions provide numerous logical sites for farm buildings, work shops or any other structures at a greater distance from the main buildings as the demands of the institution may dictate in the future; while they would be at the same time in the most direct communication with the center of the composition. With each short extension of the roads a new site is provided and these sites are always in their proper relation both architecturally and economically to the primary group. The intersection of the cross roads also provides a natural point for lamps or other embellishments which may be added at any time.

The movement for municipal improvement now sweeping over the United States is hampered in almost every instance by the difficulties of circulation in cities laid out upon a rectangular plan in which access to important centers is never direct, with consequent congestion, long travel and loss of vistas. The only American city which has avoided these defects is the City of Washington, in which diagonal circulation was originally provided, which not only gave the desired results, but has also made possible the contemplated improvements recently adopted by the Government upon lines which are logically developed from the existing plan.

The same principles apply to this miniature city; as by means of the diagonal and radiating streets, immediate straight, short and uninterrupted access is possible from all subordinate buildings to the main group, and from one group to the other, while at the same time providing individual spaces for the various buildings suited to both large and small structures, enclosed within

plots with actual boundaries which confine a greater area than is possible within any other geometrical form, thereby reducing the actual length of travel to the absolute minimum consistent with the space enclosed.

Having determined upon a plan of this general character, the various buildings of this miniature village may be easily plotted in the numerous symmetrical and isolated sites which the system provides.

The main buildings for co-ordinate and administrative work naturally group themselves in the center of the composition, equidistant from the minor buildings, with the Superintendent's house and such buildings as the Honor Cottage in prominent locations on primary lines of travel—one for purposes of utility, the other to emphasize its architectural importance. Grouped around a secondary center, outside of the main composition, and dependent for position on the topography of the site, the workshops and other industrial buildings should find a place; and in grouping the cottages, those intended for the class of inmates who are to use the industrial buildings should be kept nearest to their work.

The buildings forming the main co-ordinate group may in this form of plan be entirely surrounded by smaller groups of cottages in such a way that the several groups for the various classes of inmates may be kept separate and distinct one from the other. The Reception Cottage and the Hospital must naturally be placed outside of the main composition; the one near the entrance and the other in some isolated location; but the radiating system will always keep them on a main line of travel.

The character of the *buildings* required for a cottage institution must be dictated by the industrial necessities of each particular case. The theory of the cottage institution demands isolation and segregation. The greater the segregation, the more successfully the plan is apt to meet the most advanced demands of the cottage institution, but the greater the cost of maintenance; and it therefore becomes of paramount importance that at the inception of the work the officers of the institution should decide for the architect's guidance, if each cottage is to have its

own household economy or if there is to be a congregate dining room, and whether the cottages shall have separate rooms or dormitories.

Of the buildings themselves, the only one presenting problems peculiar to the segregate institution, is the cottage itself. Except in an Honor Cottage, the experts generally agree that in most institutions separate rooms are inadvisable. The consensus of opinion seems to place 20 to 30 inmates as the proper number which it is possible to care for adequately under one roof. If the appropriation permits the buildings should be fireproof; but if economy declares otherwise at least the stairs and halls should be so constructed and should be placed in a central location equidistant from all sleeping apartments.

Two dormitories should be provided on the second floor with adjoining locker rooms through which the toilet and wash room is entered; one such room answering for the two dormitories. Opposite the stairway on the sleeping floor and in such a position as to command the dormitories the designer should place the rooms of the person in charge of the cottage, and it is also advisable that the toilet rooms be entered from the halls as well as from the locker rooms.

Large storage spaces are essential and a sewing room is usually advisable. In planning the first floor of the cottage, every effort should be made to be as uninstitutional as possible; as no peculiar problems are presented other than may be found in any large home. The details, of course, depend upon the amount of segregation which each case demands.

The cost of each cottage providing from 20 to 30 beds would be from $10,000 to $15,000 each, dependent upon the methods of construction. No very complete statistics have been collated as yet as to the average cost of the cottage institution as a whole; but in a recent address of Dr. Hastings H. Hart, he stated that "an adequate plant for a Juvenile Reformatory (on the cottage system) can be built and equipped for from $600 to $1,000 per bed, including land." I am inclined to think, however, that while these figures may be correct for the west they would be found considerably higher in the eastern states.

Further segregation than even the cottage affords, is obtained

in the Girls' Training School at Geneva, Illinois, by the housing of small families in separate flats, each household having its complete family life within its own apartment.

In determining upon the details of the buildings of the group other than the cottages, the more the architect can forget that he is designing an institution and the more he can consider his problem one of an industrial village, the more successful he is apt to be in solving the problem and meeting the conditions for which the cottage institution stands.

Considerations of construction, sanitation, water supply, heating and lighting service, and the numerous other problems which confront the city builder all have the same relative importance in the institution and call for solution upon a smaller scale in a similar way.

The more the architect has the miniature city before him, the greater will be his success. Architecture is the servant of our industrial and economic conditions. It is successful only when it meets the demands of the time, and meets them artistically and economically.

Environment creates types of buildings as well as people. New York's tenement and skyscraper problems are both the result of environment—of city plan. The Parisian apartment is the result of that city's broad streets and well-planned avenues, and so the buildings of an institution will respond under the hand of the skilful architect to the well-considered and economic plan of the miniature city. It is a new problem in modern sociology—it must be met in the new way.

JEWISH FOSTER HOME AND ORPHAN ASYLUM, 2 P. M.,
May 7, 1906.

JEWISH DELINQUENT CHILDREN.

FALK YOUNKER, Secretary of the Young Men's Hebrew Association, New York City.

The large number of Jewish delinquent children to care for in the city of New York, involves many problems, all of which must be carefully considered, if their number is to be materially reduced. If we consider conditions in the metropolis that we have