

Dr. Patterson, superintendent of the Hospital for the Insane at Fergus Falls.
Mr. Merrill, superintendent of the State Public School at Owatonna, an institution for dependent and orphan children.

Miss Patterson, superintendent of the Home School for Girls at Sauk Center.

Miss McGregor, superintendent of the Gillette State Hospital for Crippled Children, St. Paul.

Mr. Vevle, superintendent of the School for the Blind, Faribault.

Mr. Elstad, superintendent of the School for the Deaf at Faribault.

Dr. Burns, superintendent of the Sanatorium for Consumptives at Ah-gwah-ching.

Dr. Caine, superintendent of the State Asylum for the Insane at Anoka.

Mr. Yanz, superintendent of the State Asylum for the Insane at Hastings.

Mr. Whittier, superintendent of the State Reformatory for Men at St. Cloud.

And now we have a surprise for the superintendents as well as for our guests. Just recently our superintendent at the Reformatory for Women at Shakopee resigned. She had been with us for two years. She had done very satisfactory work, and we regretted that she preferred to go back to private work rather than remain in charge of a public institution. Her resignation was accepted with regret. We wish to introduce today the young woman who has been appointed her successor, Miss Estelle Jamieson, of Stillwater, who has just this week taken charge of the Women's Reformatory at Shakopee. This is Miss Jamieson's first meeting as a member of the official family. We are very happy to welcome you into this group, Miss Jamieson.

If I have omitted anyone won't you please stand and let me introduce you?

I think you should all know our secretary, Mr. Mullen, who has been with the Board for a number of years.

And Mrs. Mullen, his wife, has also been with us many years. While she is not directly connected with the office now, she is always with us at the quarterly meetings and keeps a record of what we do and what we say.

I am happy to introduce Mrs. Elstad, wife of the superintendent of the School for the Deaf.

Mrs. Vevle, wife of the superintendent of the School for the Blind.

My niece, whom I brought with me this morning, is from Wisconsin, Miss Waggoner.

Mrs. McBroom, wife of the superintendent of the Colony for Epileptics.

Mrs. Burns, wife of the superintendent of the Sanatorium for Consumptives.

Mrs. Caine, I beg your pardon, I did not recognize you with your new hat.

Mrs. Caine, wife of the superintendent of the Anoka State Asylum.

Arthur F. Kilbourne, M. D., Superintendent, Rochester State Hospital: Our old friend, Dr. Stewart, of Owatonna, is here. He has been associated with Mr. Merrill for many years.

Mrs. La Du: Dr. Stewart, physician at the State Public School at Owatonna.

Mrs. Smith, won't you please come up here? I want you all to meet Mrs. Smith, our charming and gracious hostess today. She is the wife of Dr. Smith and the mother of three of the nicest boys in Minnesota.

This afternoon, at two-fifteen, we will meet here for a round-table discussion on the question of repairs in state institutions. There are many important questions to be asked and answered at this meeting.

AFTERNOON

Mrs. La Du: Meeting will please come to order. The round-table discussion this afternoon will be in charge of Dr. McBroom, of the program committee. Dr. McBroom.

D. E. McBroom, M. D., Superintendent, Colony for Epileptics: After having had an exceedingly interesting and instructive program this morning, we will proceed with our round-table discussion.

The subject this afternoon is one that covers considerable territory and has a great many ramifications; namely, that of repairs. Quite a number of questions have been received, and we will try to discuss all of them. Some of the questions involve fundamentals and principles along this line of work, and these we will endeavor to take up first. Knowing that some of you have long distances to drive, I shall expedite matters as much as possible.

The first question is, Is it the general practice to charge permanent employes on a regular salary to repairs?

In the program committee room the other day Dr. Freeman had some very good remarks to make along that line. May we hear from you, Dr. Freeman?

Geo. H. Freeman, M. D., Superintendent, St. Peter State Hospital: I am a little bit afraid that I talk too much. Since the last meeting I received an inquiry from New York as to who made the best indelible laundry ink.

I think in considering repairs that we have to speculate somewhat. At least, I could not find the origin of the custom of separating repairs from support which has grown up in this state, but I think it possibly grew up in the old days when we could get \$100,000 to support the whole institution but could not get \$110,000; when, if we said we needed a little money for repairs we got \$100,000 for support and \$10,000 for repairs. It was the means of boosting the money that we got for support. This custom gradually grew up and finally we forgot that repairs were a part of support.

If we received \$13,500 for repairs at St. Peter, when we had spent that amount we were through with repairs. It didn't matter if the buildings tumbled down. I think repairs are essentially a part of running our institutions and we should do the necessary repair work and not be limited to the amount in the repair fund, but I don't know that we could ever get away from having a separate fund for repairs.

Somebody said not long ago, "If we did a little pointing up and put some shingles on the roof, the institution would look pretty fair, but we have no money." I think the statement was made this morning with regard to repairs—it didn't have anything to do with whom to charge it to—that when you pass one of these institutions it should look as though it belonged to the state. If kept in decent repair it won't cost as much as it will if you let the repairs go. I have seen the time at St. Peter when we spent \$27,000 for repairs that should have been made during the preceding twenty years, and I have seen \$39,000 taken out of miscellaneous funds and balances that were honestly repairs that should have been charged to repairs.

The book value of the institution at St. Peter, which doesn't represent the true value and I don't know how we can arrive at the true value of an institution, is \$1,600,000. If the state has a million and a half invested in property, how much should it spend for repairs? I claim it should spend more than \$15,000 or \$17,000 or \$20,000 a year, because it cannot keep it in repair for that amount. We should charge it to the support fund if necessary.

Dr. McBroom: Miss McGregor, will you give us your view as to where these funds should be charged?

Elizabeth McGregor, Superintendent, Gillette State Hospital: We have a painter, who paints and does some carpenter work, who is charged against the repair fund.

When the public examiner was at our institution checking our books, he asked why we charged the salary of a permanent employe to repairs. I did not have any

more legitimate reason to give than that we had to have a painter and did not have one against support, and I felt the custom in the different institutions was that some charged men who were employed permanently doing repair work against repairs and some did not. Years ago it was about half and half.

Dr. McBroom: Dr. Murdoch, you have been making a lot of repairs.

James M. Murdoch, M. D., Superintendent, School for Feeble-Minded: Until June 1932 it was our practice to charge our permanent employes engaged in repairs to the repair fund. Since June 1932 all permanent employes engaged in repairs have been carried on the current expense schedule. We still carry a small lump sum on each of the quarterly repair estimates to cover any emergency which may occur requiring skilled mechanics whom we may find necessary for additional temporary labor to supplement our permanent employes on some special repair or emergency job. When this change was made, transferring wages from repairs to current expense, our repair fund was cut down accordingly.

Our institution was established in 1879 and many of the buildings have reached the point where they require something more than what we speak of as ordinary repairs. Many of these extraordinary repairs are matters for which the ordinary repair fund is inadequate and for which we feel the necessity of a special appropriation.

Dr. McBroom: I think Dr. Murdoch brought out a very important point in dividing our repairs between ordinary and extraordinary repairs. As this question involves more a matter of principle than anything else, I am sure we would like to have the opinion of the Board on this subject.

Mrs. La Du: I suggest that Mr. Mullen, who has been with the Board many years and has watched these changing policies, explain the reason for these different charges.

Downer Mullen, Secretary, State Board of Control: I do not know when the policy of charging ordinary repairs to a special appropriation originated. It was prior to 1903, when I entered the employ of the Board.

At some institutions certain permanent employes are paid from the repair fund; at others, they are paid from the current expense fund. It depends largely on the amount of the appropriation for repairs. If the appropriation is small, it is used mostly for the purchase of materials, and the employes are paid from the current expense fund.

However, the policy of requesting and obtaining a special appropriation for ordinary repairs appears to be confined to the state of Minnesota. I have examined the reports received from a large number of states, and find that in every case ordinary repairs—the general upkeep of the institution—are charged to maintenance. Special appropriations are granted only for extraordinary repairs, which are more of the nature of permanent improvements.

I feel that the appropriations for current expense and for repairs should be combined, and that the cost of ordinary repairs, both labor and materials, should be charged to maintenance.

Dr. McBroom: Thank you, Mr. Mullen. Would anyone else like to add anything to this discussion?

Dr. Kilbourne: Years ago that item was covered under the heading of repairs and improvements. I think I am right about that.

Mr. Mullen: Yes, it was at one time.

Dr. Kilbourne: That special appropriation was limited to repairs, and like all the other institutions we do charge up some of the permanent men's wages to the repair fund. That fund always runs out about the last of January and so we get along from January to June without any repair fund. As Dr. Freeman said,

the repair fund is never big enough. Of course, if the Board thought best, all those wages could be cut out of the repair fund and charged to current expenses, which of course would give us more for repairs.

When we ask for \$15,000 for repairs, people who are not familiar with the necessity for that item really wonder where you can spend it. As Dr. Murdoch says, after an institution has been established since 1879, as Faribault and Rochester were, the repairs are constant. I think the Board would allow necessary repairs out of current expense even if we did run out of the repair fund. I think shingles could be put on a roof out of current expenses by consent of the Board even if we did not have a repair fund with which to do it.

Mrs. La Du: I was not with the Board at the time this changing back and forth from one fund to another originated, but I think Dr. Freeman did explain the origin of it. In order not to ask for one large item of \$110,000 for support they split the item and asked for \$100,000 for support and \$10,000 for repairs, and in that way repairs became a separate item. We have always recognized the fact that repairs are a part of the maintenance of an institution, but we have asked for a separate appropriation from the legislature because it was easier to get it that way.

I think the shift of personnel from one fund to another has been for the same reason. If our repair fund has been sufficient, we have paid for employes working on repairs from that fund. If the repair fund received from the legislature was small, we paid them out of current expense. We have used that method to adjust ourselves to the appropriation.

If we desired at any time to adopt a different policy, I think it would be very easy to make the change, but it might not be possible to get all we needed for the institution in one sum. Many members of the legislature are not familiar with the size and number of buildings at our various institutions, and unless we go into the details in each case the sums requested for repairs and maintenance seem very great to them. Hence our policy of breaking down the items in our budget for better understanding. This policy has met with their approval and has been continued.

Dr. McBroom: Personally I feel that paying it out of the repair fund is somewhat to the advantage of the superintendent. Having repairs separate from current expense keeps our per-capita cost down.

We have another question, What part of the repair expense should be paid from the current expense fund and included in the cost of per capita for maintenance?

Is there anyone who cares to discuss that?

Mr. Merrill: You referred to the matter of per-capita cost. The efficiency of an institution sometimes is judged by the per-capita cost by people who read the reports.

Per-capita cost is a relative term, any way. So many factors enter into it, conditions in our several institutions vary so widely, considerations of locality, type of buildings, purposes for which the institutions exist, must be taken into account in any computation of a reasonable and proper per-capita cost.

If by maintenance is meant only the cost of supporting the inmates, feeding them, clothing them, and general care, of course the cost of repairing buildings and equipment should not be included. If by maintenance is meant the ordinary cost of running the institutions, it would seem that the cost of operating the institutions should include the expense for ordinary upkeep of buildings and equipment.

Extraordinary repairs, such as making the buildings or equipment better than they originally were, it seems to me should be no part of the running expense of the institution, but should be paid from a special appropriation for the purpose.

If the current expense appropriation is sufficient to meet the ordinary repairs of the institution and they are attended to promptly and the buildings are not allowed to deteriorate, the cost can be kept at a reasonable figure, but if they are allowed to deteriorate, become dilapidated, and require a heavy expense to repair them, it would seem to me that such expense ought not to be considered a part of the current expense of the institution.

I might say that we have followed that plan as far as we could in charging the salaries of the permanent employes who are engaged in repairs. If the work they were engaged in improved the original buildings, we charged their wages to a special appropriation. In maintaining the ordinary upkeep, the little repairs that occur from day to day, the salaries of the workmen are paid from current expense.

Dr. McBroom: The next question we have deals with old buildings not already fireproofed and copper rain gutters, etc., to replace the old iron and tin ones. We deemed it best to divide the question into two parts.

We have with us today at least two superintendents who have been fireproofing old buildings, and we have one superintendent at whose institution the old building has been wrecked and a new one erected. Dr. Kilbourne has been doing considerable fireproofing at Rochester. May we hear from you, Dr. Kilbourne?

Dr. Kilbourne: The superintendents who have all these nice new buildings do not know what repairs mean, but you go back forty or fifty years and you would find how extensive they might be.

When the Rochester State Hospital was built, the construction was very peculiar. I have a little sketch here of the old original construction that might interest you.

In the small bedrooms 2 x 4's were spiked together and laid across from skew-back to skew-back cut in the back walls, and on top of these were ten or twelve inches of what looked like road dust when you came to tear it out and the wood floors were laid on top of that. For the ceiling wire lath was tacked on 2 x 4's or 2 x 6's and plaster put onto the wire lath. After forty years or more, you can imagine the condition of those floors, with water and other liquid running down between the cracks in the floors and seeping into this dust that was just under them. The so-called hospital odor comes from just such wood floors and construction as this. We tore out nearly three acres of floor.

We were fortunate in getting a special appropriation for fireproofing. We took the floors out and put in a six-inch reinforced cement slab surfaced with tile or terrazzo.

The cost of doing that work for a room 10 x 10 was \$78.30, \$7.83 a foot. Of course there was a great deal of plastering which had to be done. That figured \$11 for a room 10 x 10. Then those rooms had to be repainted and electric wires run into the concrete, but it was worth it all.

This work of fireproofing was continuous for twenty-five or more years. I hadn't seen a ward with a wood floor for so long that I had forgotten how they looked, but I went down to Elgin and went to the hospital and looked in on one of the wards. They had five or six men running polishers over the wood floors. Materials used in polishing wood floors are susceptible to spontaneous combustion.

It cost \$30,000 each to tear out that construction and fireproof.

Dr. McBroom: The School for the Deaf at Faribault followed a different policy. Two old buildings were wrecked and supplanted by new ones. I should like to hear from Mr. Elstad. While not at the institution at the time the work was done, he is more or less familiar with it.

Leonard M. Elstad, Superintendent, School for the Deaf, Faribault: I was not there when all this happened. I think you are referring to old Mott Hall. I

think there was discussion as to whether they should tear it down or leave the walls and build it up again. They decided to tear it down. The engineer at the institution says now he wishes they had not done that, but personally I am glad. We have two new buildings in place of it. We know absolutely that these are fireproof.

We still have Barron Hall. The School is seventy years old, and Barron Hall has been there many years. The floors are all wood. It can't help but be a firetrap. I don't think it would be wise to clean that out and leave the shell and fireproof it. I would rather see a good modern dormitory go up that would meet the requirements of the up-to-date school. The rooms are big, with twenty-five beds in a room. I don't think it would adapt itself to fireproofing the way we would like to have it done. With the limited experience I have had, I would rather see, instead of fireproofing old buildings, modern, up-to-date buildings put up unless the old ones are in too good shape to tear down.

Dr. McBroom: Thank you, Mr. Elstad.

Dr. Patterson, you have done considerable work at your institution. May we hear from you?

W. L. Patterson, M. D., Superintendent, Fergus Falls State Hospital: What has been done at Fergus Falls is just the same thing that was done at Rochester. There is no difference in construction. It seemed to be a matter of tearing out wooden floors, laying slabs of concrete, and then tile. It cost \$200,000 to lay the tile floors.

The doors are wood, the windows are wood. It is a slow-burning construction. That is all you can say for it. In a building that is under constant surveillance there is not so much danger of its burning down as of the mattresses and bed clothing catching on fire and smothering people. It does not take a great deal of fire to smother a dozen or so people to death. You get so much smoke on the floor you can hardly find your way through. Although we don't anticipate their burning down, you can have enough smoke so that many patients could be suffocated to death.

Dr. Kilbourne: I should like to call your attention to something you may not know. The north wing of the St. Peter State Hospital burned down in 1880 with loss of life.

On Ward's Island one of the wards I used to have charge of fifty-one years ago burned. The floor above fell and cut off the escape of people in the rear of that ward. They had iron bars built in the windows and those people all perished.

The satisfaction of having a fireproof building almost pays for the expense that you have put into it.

Mrs. La Du: I suggest that Mr. Carlgren give us his opinion. He has had some practical experience.

Mr. Carlgren: I don't know what the individual experience in the various institutions has been, but I can see where some of your staff would have sufficient knowledge to take care of minor maintenance work in connection with the plumbing and heating. When it comes to repairs, you will find that the owner of a large building in the city would not keep a crew constantly meddling with repairs. He may have an engineer there. He may perhaps have a man who has had a little electrical experience, but he would not keep a crew of men to keep the building in repair. He hires his repair work done by experts. When it comes to certain kinds of repair in an institution, I think there should be hired a special crew of efficient men trained in modern construction; in other words, using a slang expression, men who know what it is all about. All plastering has been revolutionized. All masonry has been revolutionized. What they called mortar ten years ago they call mud today. A mason would not touch it. I venture to say you could hit with a hammer any of the plastering recently put on in your buildings and you would find it is just like granite.

In the older institutions if you should hit the plastering with a hammer it would come off like sand in your hand.

When it comes to real renovation or repair in any of our buildings, the work should be turned over to experts who would come to the institution and do the work right so that when it is done it is finished. I think it would be better for the institution. It would be more economical and I am sure it would be more efficient.

I am not saying that the men at the institutions lack qualifications for certain kinds of work, but I presume many of them have not been in private industry for years; consequently they are unable to follow up what is new in the building industry. I don't know that I should mention it, Mr. Whittier, but we had a little experience at St. Cloud, but I blame no one. I do not blame the mason at Faribault. He did not know what is done today. Nor do I blame the man at St. Cloud for not knowing all the details of plastering that is actually being done today in industry. If there are repairs to be done, go ahead and do it right and then be done for all time to come. That would probably reduce the so-called maintenance crew. You would have to have some of them, not all of them, probably a carpenter. I presume your engineer is a jack-of-all-trades more or less. That would be my guess. I haven't had time to go over that matter, but I presume he is a jack-of-all-trades so far as the power plant, plumbing and heating system are concerned. At Faribault you have some carpenters, masons and assistant masons. If you are to repoint all the school buildings at Faribault, it is a job for an expert, people employed in a specific field in industry. He can do it with efficiency, expedite it, and I believe the cost will be less.

Of course where a building has reached the point that practically all of your old ones have reached, where the wooden window frames and wooden door sash have so deteriorated that they are all rotten, where you have old Chaska brick, hollow brick, used for construction, in other words old ramshackle buildings, I don't know that such a building should be repaired by the state. I think it should be wrecked and a modern structure built that would fill the needs of the day. When that is done, you are through with repairing and you have an institution such as the state ought to have.

You may disagree with me. I may not be entirely correct. I merely hazard this as a guess with reference to larger repair. For example, you are using inmate labor to some extent, but it seems to me if there are a number of buildings that need to be redecorated and a great deal of repair work needs to be done, men should be employed who are engaged in private industry. If you take an efficient crew under an able foreman and tell him just what is to be done and then go ahead and do it, I think you get, generally speaking, more efficient results.

You may find that your own maintenance crew is able to do the things I have referred to. I am open-minded. If that is the case, I am ready to stand corrected.

Where you have definite repairs to be made, go to the legislature for a special appropriation separate from maintenance, especially renovating a building and renewing it. That is more than maintenance. I think it should be a separate appropriation.

With the present economic condition, I think the state should do everything it can, if you can get the legislature to agree, to carry on repair work at state institutions, get them up-to-date as much as possibly can be done. No one can hazard a guess, but I am inclined to believe that the cost will be somewhat increased. I think it is fair to assume that a few years from now it will be higher. Now is the time to do it from the standpoint of economy and from the standpoint of employment. Many of the institutions need repairs.

Dr. Kilbourne: I have an idea that all public buildings should have inscribed bricks within their structure by which to identify them in the years to come. Our knowledge of ancient civilizations has been brought to us through the agency of such material as clay tablets and inscribed brick.

Dr. McBroom: Mr. Foley, you have had a vast experience in the construction of buildings.

Mr. Foley: I think along the same lines that Mr. Carlgren and Mr. Elstad do.

When a building is old and in need of repair it should not be tampered with. I should dislike to see the center building at the Hastings Asylum fireproofed. It should be torn down, as was the old center at Anoka, and a new building erected.

Dr. McBroom: We will go on with the other part of this question concerning the rain gutters on the buildings.

In connection with this Miss McGregor volunteered to give us a quotation on the comparative cost of the different materials used in downspouts and gutters.

Miss McGregor: I asked a number of contractors about the comparative cost. I think they were afraid I was getting prices on some work we had to do, and they gave relative costs only. They stated that copper was by far the best of all quotations because it does not rust and wear through as the tin and iron are apt to do unless they are kept painted. The cost of copper during the past few years has been down so that it is not much more expensive than that which was put in in the beginning.

We have at our institution possibly a mile of drain pipes that constantly need to be replaced. There are screens on the opening, but water does sometimes drip through and braces loosen and the drain pipes break and have to be replaced. We have no copper in our institution. On some of the buildings at some of the institutions they have copper downspouts and have had no expense in repair.

Dr. McBroom: Thank you. Along this line there was a very specific question asked, how best to make permanent joints in downspouts and gutters to withstand this climate. It seems as if a great deal of the difficulty arises at the soldered joints which in this climate, due to ice and snow, have a tendency to give way.

I understand Dr. Smith has miles of so-called boxgutters at this institution. We would like to hear from him.

Mr. Veve: I can tell you my experience while Dr. Smith is getting ready to tell his.

The boxgutters and downspouts at our institution were leaking and water was getting inside the buildings. I went with the men and inspected the construction over the entire institution. We inserted under the tile roofing and along the seam of the gutter an expansion joint of galvanized tin about eight inches wide, and soldered it on each side of the original joint and also screwed it down. We did that with every one of the joints in all our boxgutters and made repairs on downspouts at a cost of \$250. Since that, every summer we have checked all the downspouts and have been able to make the necessary additional repairs at a cost of \$25 to \$50. We have had practically no leaks since we made that complete repair some years ago. We made a casual inspection a week or two ago over part of the work and we did not find a single seam that had opened up even after three years. We have painted the gutters with red lead. Twenty-five to \$50 will keep these in repair.

Dr. McBroom: Dr. Smith, will you let us hear from you relative to downspouts and gutters?

Dr. Smith: We have many, but during the last two or three years we haven't used them very much.

We have gutters and downspouts constructed from zinc, copper and galvanized iron. Some of our gutters are of the suspended type with expansion joints. Some

of them are nailed. Each spring and fall there is an expansion and contraction and consequently there is repair work to be done on the gutters constructed without expansion joints.

I hesitate to talk much about construction with so many others here who know more than I do about the subject. However, it seems to me that gutters should be constructed on the suspended type with expansion joints. Zinc, copper and iron are the metals usually used, and I think copper and zinc are better than iron on account of the fact that copper and zinc do not rust.

Our last two cottages, constructed just recently, have copper downspouts and copper gutters. All of our recent buildings have the suspended type of gutters with expansion joints. Some of the first buildings which were constructed here have zinc gutters and downspouts. The superintendent's cottage has zinc gutters, and we have never had any trouble with them. It is the suspended type with expansion joints. I believe the same material is used at the laundry and power house. On some of the later cottages galvanized iron was used, and these gutters were built on the suspended type with expansion joints.

I prefer either zinc or copper, but iron will last many years if kept painted.

Dr. McBroom: Flat roofs at Cambridge have eliminated all gutter trouble. Our downspouts are in the center of the building so that we are never bothered by their freezing. We have found the flat roofs very satisfactory.

Another question concerns the institutions buying lumber in carload lots, how to store it and how to issue same.

Mr. Whittier, of St. Cloud, uses a great deal of lumber in his institution. We would like to hear from you, **Mr. Whittier.**

H. B. Whittier, Acting Superintendent, State Reformatory: We have bought several lots of oak for the manufacture of furniture. This does not go through the institution store but is placed immediately in the wood shop.

In 1932 we purchased 41,000 feet of rough pine, that was all in 2 x 8 size, at \$40 a thousand. The local price at that time was \$48 per thousand.

We purchased 10,000 feet of No. 1 pine at \$78 a thousand. The cheapest price locally was \$90 per thousand.

About three years ago we went out to a farmer near Foley and got 25,000 feet of green oak which we stored two years. We bought that for \$29 a thousand.

This fall we had to buy a carload of 2-inch oak for the inmates' dining room tables and chairs. That cost \$130 a thousand. The price quoted by Minneapolis companies was \$150 a thousand.

We have never bought in carload lots for institution purposes. Unless your institution is equipped with a rip saw and plane, I do not think it would be advisable. It would not be feasible if you had to buy different dimensions.

Mr. Carlgren will probably tell us about buying in carload lots.

Mr. Carlgren: Of course if you buy in carload lots you buy cheaper.

Dr. McBroom: Is there anyone here who does buy repair lumber in carload lots?

Dr. Murdoch: We do buy repair lumber in mixed carload lots, both common and finishing, and make a saving by so doing of from \$10 to \$15 a thousand feet. A carload contains from 50,000 to 60,000 feet.

Dr. McBroom: Will you tell us how it is stored and how issued?

Dr. Murdoch: It is issued on requisition. Every project is figured up by the superintendent of construction, and it is charged against the particular project for which it is used.

We have an open shed in which we store common lumber and an enclosed shed in which we store finishing lumber.

Mr. Elstad: The lumber we use for our shops is stored in a special room. When we use it it is absolutely dry. It is a good storage room and would hold two carloads of lumber.

Dr. McBroom: That is not issued against repairs?

Mr. Elstad: No.

Dr. Freeman: I think if many of us had to buy lumber in carload lots we would have to do as the grain brokers do. They have an over account and an under account which they use. If there is anything over, it belongs to them, and if there is anything under, they are just out of luck. I think at the end of the season we would find a great deal under unless we had a twenty-two foot wall around it.

Dr. McBroom: The next subject we have been asked to discuss is that of mattresses, with special reference to the remaking of them.

Dr. Patterson, will you open the discussion?

Dr. Patterson: A mattress shop is of some importance to us. We make about 700 new and renovated mattresses each year. We buy the ticking, 32-inch ticking, at something like 20 cents a yard. The ticks are made up in the sewing room. They are made eight inches longer than they should be so as to allow for shrinkage. They are taken over to the laundry and shrunk, and then brought back to the sewing room. The tick is made up and given to the mattress maker. It takes about 35 pounds of No. 2 cotton to fill a tick. Cotton costs about six or seven cents a pound. After the cotton has been put in the tick, it is sewed in the mattress shop.

So far as making up new mattresses is concerned, you save practically nothing. There is nothing gained in making up new mattresses, even though you have labor free of cost. You can buy them from the wholesaler just about as cheap. The saving is in renovating the mattress, not in making new ones.

The soiled mattresses are taken over to the mattress shop, the old cotton is taken out and destroyed, the good cotton is then put through the picker to bring up the lumps, and new cotton is added to it and the mattress is restuffed. In the meantime the ticking is sent to the laundry to be washed and cleaned and then is sent back.

Where there are a large number of untidy patients, it is pretty nearly necessary to have a mattress shop to take care of the renovating. That really saves a good many hundred dollars on old mattresses, but nothing to amount to anything on new mattresses.

Dr. McBroom: **Dr. Murdoch,** you have a mattress shop.

Dr. Murdoch: We have a mattress shop at the School for Feeble-Minded. We use some cotton mattresses, but most of our mattresses are made of hair. We make our own mattresses. The cotton mattresses are about as **Dr. Patterson** described. Our hair mattresses are about the same weight. We use 25 pounds of hair. We use the South American mane hair, supposed to be from the mane of horses. That costs us 30 cents a pound. It takes six yards of ticking at a cost of from 19 cents to 20 cents a yard, making the cost of a hair mattress \$8.66. That, of course, does not include the cost of labor in making.

We like the hair better because it can be renovated in better shape. About 60 per cent of our 2,300 inmates are untidy, and there is a great deal of going over mattresses. We turn out every day from 15 to 20 renovated mattresses. The hair is pulled apart and dried in the sun and then run through a picker, which blows out the short hair and dust and dirt. We don't have to add a great deal of new hair. With cotton we can only make about one renovated mattress out of two of the old mattresses. The South American mane hair is a long, well-curved hair, and it lasts for years and years. We do not require a great deal of new hair.

We protect our mattresses with rubber sheets. We sew straps made of ticking to the corners of these rubber sheets and tie them under the bed. Some of the children will get those rubber sheets off, and so we have tried making this rubber sheeting into a tube, into which we slip the mattress, and that protects it both top and bottom.

We usually have one employe in the mattress shop, with two or three boys working with him, and they renovate from 15 to 20 mattresses a day. The ticks are made in the sewing room out of eight-ounce, 32-inch wide ticking, at a cost of 19¼ cents a yard at the present time. Some of the mattresses go into the laundry to be washed and used right over again. Others are repaired. The ticks are made in the sewing room, stored in the storeroom, and issued from there to the mattress shops.

We use about 2,100 pounds of new hair a year.

Mr. Foley: How do you clean the mattresses?

Dr. Murdoch: Ordinarily the mattress is taken apart, the ticking washed and sterilized in the laundry, the hair put through the blower where the hair is torn apart and all short hair and dust removed by a strong current of air constantly passing through the renovator. Where there seems danger of infection, the whole mattress is sterilized in the laundry before being taken apart.

Dr. McBroom: Dr. Freeman.

Dr. Freeman: We do somewhat as Dr. Murdoch does except that our mattresses are lighter, rather thin. They weigh 18 pounds. We are using nothing but the curled hair in making our mattresses. We renovate about 1400 mattresses a year as compared with the larger number the Doctor does, but all our mattresses are sterilized. A soiled mattress is put in the washing machine with cold water and then brought to a boil, then put in the extractor to get rid of the excess water. In this kind of weather we dry the hair outside; in other weather, by means of steam. By bringing the water to a boil we don't find that it increases the brittleness. We can remake our mattresses and use less than a pound of hair. The mattress maker tells us that occasionally he comes across a grade of hair where the amount of new hair used in an 18-pound mattress would be about a half pound. The Doctor would evidently be using two pounds, but possibly the sterilization accounts for that.

Dr. Kilbourne: When I went to Rochester the mattresses used there were of cotton, very nice, but we had to discard them, and since then we have used hair.

A good grade of curled hair should be used. There is considerable waste in cheap hair, and it packs to hardness in the mattress and pillows.

We have a mattress maker, and the mattresses are renovated and sterilized. Many feather pillows are in use.

Dr. McBroom: Mr. Yanz, what do you do with your mattresses?

Wm. J. Yanz, Superintendent, Hastings State Asylum: We make over about 40 mattresses a month. We use about the same amount of hair as Dr. Murdoch does, about 20 pounds.

Dr. McBroom: Miss McGregor, you have a little different problem from the rest of us. May we hear from you, Miss McGregor?

Miss McGregor: We use cotton mattresses. We have our mattresses renovated by people outside the institution and they last on an average of about five years. By that time some of them are hardly fit to be used. They wash the ticking and it shrinks, and they build it up to the proper size and add enough cotton to bring it up to the desired weight. I think the average cost is \$2.50 for small-sized beds and cribs.

The condition of the mattresses on the large beds is better than of those on the beds of smaller children, and especially those who have wet dressings and discharging

sinuses. Although such mattresses are covered with a tube of rubber sheeting similar to what Dr. Murdoch described, I can get the odor of the dressings.

The mattresses are sterilized, and put through the autoclave at regular intervals, which does not decrease the odor.

I hope that in the future we may have hair mattresses instead of cotton so that we can keep them cleaner and use more of the hair over when it comes to renovating them.

Dr. McBroom: Dr. Burns, you are dealing with a contagious group of patients. Will you tell us what you can do about your mattresses?

H. A. Burns, M. D., Superintendent, Sanatorium for Consumptives: The only mattress problem we have is the one concerning the disposal of those beyond repair. I represent one of the smaller institutions, in which a mattress shop is not practical, and the question of salvaging the wornout mattresses is one which might be considered. Such mattresses must either be renovated and put back into service, or destroyed.

So far as their being dangerous because of association with tuberculosis patients, I do not think this is of any particular importance. Mattresses are sterilized after being used by patients, and seldom do contaminated discharges saturate the mattress. All our mattresses are sterilized before they are stored in a clean area.

The big problem with us is whether or not such mattresses have a salvage value. If there is a value attached to the discarded mattresses in a small institution, we could very well present them to an institution which conducts a shop. At the present time we have about fifty discarded mattresses which, if of any value, could be given to an institution equipped to renovate them and make new mattresses out of them.

Miss McGregor: May I ask a question? Do the institutions which conduct a mattress factory do work for any institution beside their own?

Dr. McBroom: I think not.

The last question is whether or not it would be practical for the State Board of Control to maintain a central supply station from which each institution can, on short notice, order its repairs. We have decided to add to this the question of standardization.

We will throw this open for general discussion and will be glad to hear from everybody. It may be a question to be put up to the Board.

Mr. Foley: What kind of repairs? The question covers quite a scope.

Dr. McBroom: I think this question really had reference to mechanical repairs.

Mrs. La Du: Equipment in the different institutions has not been standardized and a central repair shop has not been considered feasible.

Many times, when we go over the estimates, we wonder if the particular individual ordering the mechanical equipment would order quite so generously if he were spending his own funds and I wonder if there is not more or less loss in having so large an amount of equipment on hand at some of the institutions, but because of the various types of machinery used in the different institutions and the difference in repairs, it has always been thought best to let each institution carry its own repair supplies. If the equipment were standardized in every way it might be a very simple matter, although every institution would have to carry an emergency supply. As you go through the power plants and shops at the institutions you wonder if they need such large amounts of repair supplies. It is for you superintendents to check with your employes who are in charge of the shops or power plants to see if by careful ordering the repair budgets may be kept as low as possible. However, it would be necessary to have at all times the amount required for an emergency, and keeping up repairs is always best economy.

Inez B. Patterson, Superintendent, Home School for Girls: We might have a little bit more help in that line from the purchasing department. Sometimes we estimate for a particular type of equipment and it is not given us but a different type is secured. We have often thought this was wrong.

Dr. Murdoch: Under the CWA work we fitted up two large basement rooms in which we have on either side of the room a number of bins in which to put the couplings, elts, tees, and so forth, the type of repairs needed in the engineering department. An employe can go to a particular spot and get just the fitting he wants. If that kind of material is placed in one pile it may be that an employe can not find what he wants and asks for a new one, but if properly tabulated and stored, such fittings are easy to find.

Mrs. La Du: I think you will find that equipment is properly stored and properly labeled in practically all institutions so that a person can go directly to it and get it. Some have better shops than others for this purpose.

Mr. Elstad: I am new in this game, but I have often wondered, when the engineer puts in his request for material and he gets enough fuses, for instance, for three years, is that economy? Is it economy to buy enough for one year, or is it better to buy enough for two years or for three years?

Mrs. La Du: We operate on a two-year budget, so perhaps a two-year supply is best.

Miss McGregor: Every time we have built an addition to our institution we have had a different kind of equipment, a different type of plumbing, a different type of valve in the radiators. I couldn't tell you all the different kinds of valves we are using.

One way that we could economize would be to confine ourselves to two kinds of valves instead of a dozen or fifteen. Of course equipment changes and in a few years becomes obsolete, but if we have to keep supplies for so many different types it means a lot of unnecessary expense.

Mrs. La Du: As Miss McGregor says, equipment becomes obsolete. That is one great reason for the change in equipment. When we erect a new building at an institution, much later, more modern equipment is supplied. As Mr. Carlgren said about the building industries, they are very much improved today over what they were yesterday. Many times the type of equipment that was furnished a number of years ago is not manufactured any more. For that reason it is impossible to always keep a standard quality or a standard grade of equipment. If the amount of supplies desired is small, it is left to the discretion of the Board or the purchasing agent just what type shall be purchased, but if we purchase repairs in large quantities, the law requires that we shall submit that to bidders. The firm that makes the lowest bid and gets the contract may not supply the type of equipment that you prefer, but if it is of good quality and made by one of the standard manufacturers, the law requires that we accept the low bid. We do not always have the choice.

Dr. Freeman: I do not see why the state should be put to the disadvantage of purchasing something which would be to its detriment later on. It seems to me that something should be done about the competitive bidding law in the very minor matter where we are estimating for something which is perfectly standard. Why not let St. Peter use one type of standard faucet, for instance, let another large institution use some other standard type, and a third institution still a different type. Then get bids from the several firms on the three types of faucet. Then we would know whether they were treating us the way they should.

Mr. Veile: Mr. Chairman, I think this matter of keeping a large supply of repair items on hand is more pertinent to us in the smaller institutions than to those in the larger. It is just as necessary for us to keep a large variety on hand as for

the larger institutions. If you were to check on some of our repair items for steam valves, vacuum valves, and so on, we would have to have just as large a variety as the bigger institutions, although we do not need the quantity which they need. We feel we have too many repair items on hand, and still we need them all. If we try to reduce, we find we are running out, and when an emergency arises, we have to go to Dr. Murdoch and borrow. I do not know whether it is possible to standardize on all of the items, but it seems to me it should be possible to standardize on many of them.

We have our repair items in boxes, all marked, and when estimating time comes all the engineer has to do is to go to these several boxes to see what items he is in need of and make out his order for the next period. We have tried to reduce the quantity by asking him to order for a shorter period of time. That did not seem to be practical. We asked him to order a larger quantity that would last over a longer period and to order fewer items. It seemed to me there was too much type-writing and clerical work necessary when making out the estimates. Sometimes there would be 200 different items needed for repairs, even though the supply of each item was not large.

Maybe having a central depot is not practical. If it is not, of course we shall have to go on as we have been going on in the past.

Dr. McBroom: Is there any further discussion? I believe that answers the question quite thoroughly. Owing to the fact that the institutions have so many different needs, it would seem inadvisable for the Board to establish a central supply bureau, since each institution is having difficulty to keep up its own supply. It seems to be a matter of standardization.

I will ask Miss McGregor if she has anything more to say. If not, I thank you for your attention.

We will turn the meeting back to Mrs. La Du, the general chairman.

Mrs. La Du: The next quarterly conference will be held in conjunction with the State Conference of Social Work at the Agricultural College in September, and you will receive tentative programs within a short time.

In the morning we are going to have a general discussion led by Mr. Harry Lurie, Director of the Bureau of Jewish Social Research of New York City. His subject is "An Evaluation of Social Work."

Following this general meeting we may attend any one of several panel discussions on the general subject of the morning session.

Our group will have its usual luncheon with a guest speaker, to be announced later.

In the evening the speaker for the state institution group is to be Hon. Sanford Bates, Director of Federal Prisons, Department of Justice. His subject, "Juvenile Delinquency."

Before leaving I want to thank Dr. Smith and Mrs. Smith for the delicious luncheon and all the pleasant arrangements which have been made for us, and to extend to you all an invitation to go over to the house where Mrs. Smith will serve a cup of coffee or a cool drink before we leave.

Adjourned.