MEMBER: Does the freezing process injure the silage?
MR. GLOVER: Not if it is used right away. It doesn’t hurt it very much but I don’t believe it improves it.

THE CHAIRMAN: Is that committee ready to report?
MR. L. OLSEN, West Depere: I want to say at this time that we had a meeting and we feel that you haven’t given us time to revise the by-laws. We didn’t want to be responsible for it. We thought it would be far better to let it go and take it up the next annual meeting.

MR. C. E. LEE, Madison: I move that we grant the committee a year’s time to revise the by-laws.

This motion was seconded and carried.

THE CHAIRMAN: There is no program on tonight. There is a show at the Opera House to which you are all invited. Tomorrow there is no program on in the hall here. There will be the educational exhibit of butter by Mr. Carswell that takes place, I believe, in Machinery Hall; also Machinery Hall will be open for the inspection of machinery.

THURSDAY AFTERNOON SESSION.

Thursday afternoon, two o’clock, meeting called to order by the President.

THE CHAIRMAN: The first on the program for the afternoon is The Making of Butter from Sour Hand Separator Cream, by Prof. M. Mortenson.

SOUR HAND SEPARATOR CREAM.

By Prof. M. Mortensen, Ames, Ia.

Prof. Mortenson: Mr. Chairman, Fellow Buttermakers and Ladies and Gentlemen: In discussing this subject it may naturally be divided into two parts, 1st, methods by which to manufacture the best butter from sour hand separator cream, and 2nd, the advisability of manufacturing butter from sour hand separator cream.
We realize that cream which sours before it is received at the creamery cannot at all times be converted into good butter. We can safely make the statement that most often an inferior article is manufactured therefrom, for it is a well known fact that we may use all the lime and saltpeter available and all the purified hot air that can be produced with our most up-to-date United States machinery, nevertheless we find that it is absolutely impossible to

PROF. M. MORTENSEN

produce a piece of butter which is of high and uniform quality unless the ripening of the cream from the time it is sweet is under the care of a skillful operator.

We all agree that it is possible for the skillful buttermaker to improve somewhat the average sour cream as it is received at the creameries. We have found that it is possible by pasteurization to improve it from one to three points but as pasteurization
of cream has already been discussed we shall not give it further consideration at this time.

Promptness in caring for the cream upon receipt thereof is of great importance. The poor quality of cream produced during recent years has caused some of our buttermakers who are handling gathered cream to have become somewhat careless. They leave the cans containing the cream stand around in the creamery for hours before caring therefor. They do not seem to realize that such cream, the same as sweet cream, will become poorer the longer it is left without care. We have quite frequently observed that a buttermaker will receive cream for the entire day pouring it all into the same vat and in the evening making the first attempt to mix and cool it. Cream handled in such a careless manner and perhaps churned the following morning without even the addition of a starter cannot be expected to produce good butter.

The cream should immediately upon receipt thereof be cooled to about 50 degrees F., unless it can be pasteurized when received. The cream should furthermore be graded and sweet and sour cream pasteurized separately and kept in separate vats even if only one grade of butter is to be made. The sweet cream should be transferred at ripening temperature from pasteurizer to cream ripener. A big starter should be added to it and it should be allowed to ripen properly. The sour cream after pasteurization should be cooled to a temperature below 50 degrees Fahrenheit and held at such a temperature until the sweet cream has been ripened and cooled. The two lots of cream may then be mixed and held for one or two hours and churned. In experiments the sour cream together in the same proportion. Then we took another lot and we ripened the sweet cream separate and then treated it in the way I have just explained, and there was from two or three points difference. Then we added the sour cream to it later on and we usually scored from two to three points above the butter manufactured in the other way. Suppose you have 50% sweet cream. It is just the same as if you had 50% starter, and you fully realize the more starter you have for the cream the better butter you will have. I consider that every creamery ought to have a starter. The sweet cream which has been properly ripened
answers the purpose of a big starter. This method will improve the cream up to three points as compared with cream which is not graded but is mixed before pasteurization.

The value of a good big starter is so well understood that it is scarcely worth while to devote any time for discussion thereof. If it is found to be impossible to secure a sufficient amount of skim milk for starter, very satisfactory results can be obtained from condensed milk or powdered milk. It may be more expensive, but at the same time it is very desirable to use it. We find that it is possible for many creameries to make arrangement with farmers living nearby the creamery to exchange with them giving butter-milk for skim milk.

Butter manufactured from cream of inferior quality should be thoroughly washed in order to remove as much as possible of the old flavor. Some buttermakers after thoroughly washing the butter will work or churn it in a good starter. By incorporating this into the butter the flavor is materially improved and during the winter season, if the butter is consumed while fresh, this method may give good results, but the increased curd content of the butter will tend to decrease materially the keeping qualities of the butter. Therefore this method cannot be recommended as applicable during the summer season or for butter that has to be kept for any length of time before being consumed. We are often asked if cream which is quite sour at the time of pasteurization should be ripened to a higher degree of acidity after pasteurization. In accordance with our experience it is impossible to give a definite answer to that question, for in some cases we are able to ripen the cream to a higher degree after pasteurization while at other times cream of the same acidity and of the same richness will acquire undesirable flavors if allowed to ripen after pasteurization. It depends largely on how many germs in the cream will resist the pasteurizing temperature. We find that this number in pasteurized sour cream will range from 30,000 to 160,000 per cc. If ripening after pasteurization not less than 10% starter should be used and the buttermaker should watch the ripening process very closely so that he may cool the cream immediately if he notes any undesirable flavors developing. In some places in our state
they have three separators. They first let it go through one separator where they remove some of the curd, then through another separator, and finally through the third separator where the cream and the skim milk or buttermilk will be separated. They will skim 60% cream and they will reduce that with good starter until they have it down to about 30 or 40%, and then they will churn it. That method is one of the best methods by which you can improve the quality of the cream, at the same time it is quite expensive. It will amount to about a cent a pound ordinarily.

As to the advisability of accepting sour cream we believe that 50% of the creameries receiving sour cream today could just as well receive sweet cream if they would make an effort.

The experiments conducted at Algona, Iowa, by the Dairy Division in Washington proves that by paying three cents more per pound of butter fat in sweet cream than for butter fat in sour cream the sweet cream increased from about 10% to 90% of the amount delivered. What has been accomplished there can be accomplished in other localities, but the trouble is you are always so afraid of competitors. We shall not attempt to state that the difference of three cents per pound would be most satisfactory to all other communities for in that matter local conditions should be carefully considered, but we do claim that every creamery can receive the greater part of their cream sweet if they pay for quality and we also claim that there is not a creamery patron who will not be in position to deliver at least part of his cream sweet at each delivery.

A physician who is honest will give advice for preventing diseases in preference to giving medicine as a cure for diseases. It is the most logical method by which to keep people in good health. That reminds me of a story. A man was taken sick and he went to a physician to be examined. The physician, after making the examination, said, "Well, Mr. Steiner, I believe you have appendicitis. We will have to operate on you." Mr. Steiner said, "Wouldn't you please examine me again, because I don't believe I could ever take such a fashionable disease." So the physician examined him once more, and while he was making the examination he felt the pocket book of Mr. Steiner, and he said, "No, Mr.
Steiner, I don't believe you have appendicitis.” And so it is with cheap physicians.

The same is true and even more so in reference to our cream supply. In taking that old stuff and being satisfied with it and converting it—using your medicine for trying to doctor it up—you are really taking the place of that cheap physician. You are trying to make something out of it just for the sake of holding your job. We are spending time, money, and energy in the matter of improving the quality of sour cream after it has been received at the creamery. If the same energy was expended on caring for cream on the farm and while on the road to the creamery it would be unnecessary to study the problem of how to improve sour cream.

We all realize the importance of improving the cream supply. We are willing to do all that can be done. The great number of our creameries have not started to buy on quality basis so far, fearing that they may lose patronage to their competitor who is considered as opposed to all kinds of reform.

Would it be possible that the buttermakers’ association of a state could hasten the introduction of the grading system by the following method. Appoint a committee of three members noted for their activity. This committee should appoint their secretary from among the members of the committee. This committee will then appoint subcommittees in each county. It should be left to the county committees to secure some agreement from all creameries operating in that county to buy cream on quality basis. The state committee through their secretary should be in constant touch with the county committees and on finding that the creameries of a county cannot be organized, then apply to the State Dairy Commissioner for his support. Put it up to this committee and have the State Committee report at your next annual meeting what has been done, and the sub-committees are held responsible to them, and it will be up to the sub-committees to make some arrangements to have the county organized so that the creameries there are all willing to buy on a quality basis. It seems to me that by that method and talking the matter over it will be possible for you to make some agreement so that you can make some difference in price between sweet and sour cream.
This is merely a suggestion and it may not be practical, but we believe that it will be to the interest of all who are engaged in the creamery business in our country that we inaugurate a vigorous campaign which will lead to improvement of the quality of cream as it comes from the producers. The mere talk about it will not be of much value. We must start some action.

I thank you. (Great applause.)

**DISCUSSION.**

**THE CHAIRMAN:** You have heard this paper, and I think it is a good paper, worthy of quite a lot of discussion.

**MR. H. C. LARSON, Madison:** I have a resolution here that I want to read before this Association:

Whereas, Article Fourth of the By-Laws of the Wisconsin Buttermakers’ Association reads as follows:

“The privileges of the Association’s butter contests are open to exhibitors outside of Wisconsin, but such exhibitor must be present in person, or have a representative of the creamery present at the convention to entitle him to share in the pro-rata premium fund, or, compete for any other prizes offered by the Association, and must conform to all regulations required of State Exhibitors.”

Therefore, in accordance with Article Seventh of the Articles of Incorporation, notice is hereby given that a motion will be made in due time to amend Article Fourth of the By-Laws to read as follows:

Article Fourth: “The privileges of the Association’s butter contests are open to exhibitors outside of Wisconsin for complimentary score only and that any exhibitor exhibiting butter at these Association Contests for complimentary score shall, after deducting express charges and $1.00 membership fee, have returned the balance for which the butter sold.”

A motion will be made in due time.

**MR. O. F. FULLER:** Did I understand you to say that this sour hand separator cream is improved by water or milk being added to it? If it was, what is your loss on separator?

**PROF. MORTENSON:** I know of places where they are getting in milk to mix with it, but if you have no milk to mix with it
I should prefer not to dilute it in any way, for if you use water part of it will replace part of the milk serum and produce a watery flavor. We found in the work that we have done (I worked along that line for six months one winter) that even the curd in the separator will contain up to 16 and 18 per cent of fat. You will usually have from 4 to 5 per cent fat.

Mr. George Young, Comstock: In case of pasteurizing this cream, would you dilute it, or pasteurize it with the high per cent of fat?

Prof. Mortenson: Dilute it with milk before you pasteurize, or else it is apt to acquire a mealy body.

Mr. H. D. Nichols, Elkhorn: I would like to ask if you can use a little sweet cream for a starter?

Prof. Mortenson: Well, you can do that. I would prefer, though, to use the milk, but in case you cannot get the milk, it is all right to use the cream starter. In ripening the sweet cream first is really to prepare a starter, and it would be all right, I should think, to prepare a starter in that way.

Mr. E. C. Dodge, Lake Mills: Do you notice any difference in the test of the buttermilk between pasteurized cream and raw cream?

Prof. Mortenson: Yes, we find that the test is higher from buttermilk from pasteurized cream, and usually the test will run up from one to two-tenths per cent in the buttermilk. You understand that the pasteurized cream has to be churned so much cooler than the other. We are churning pasteurized cream at about 50 degrees; the other cream at 56 to 57.

Mr. A. H. Jenks, Loyal: If you would be using starter would you prefer a skim milk starter to a whole milk starter?

Prof. Mortenson: There are a good many reasons for using a skim milk starter.

Mr. H. H. Whiting, Cedarburg: Don't you find that in pasteurizing sour cream that the temperature has a good deal to do with the wheying off of the buttermilk?

Prof. Mortenson: No, we haven't found very much difference there. We can get just as good results from cream that
has been heated to 185 degrees as from cream of 140 degrees with .3 or .4 per cent of acidity.

MEMBER: Why do you consider skim milk better than cream for a starter?

PROF. MORTENSON: You are not losing so much if your starter spoils when using skim milk. If you have a skim milk starter it is easier for you to tell the true flavor. You know more about what kind of a starter you have, what the quality of it is. It is advisable to reject a small portion of the upper part of the starter because there are always a good many undesirable bacteria in the upper layers. If you use a whole milk starter you will in this case reject the cream. You are apt to have a little different flavor in the upper layers than in the lower layers. If you are going to market a real fancy piece of butter I would consider that a skim milk starter would be the thing to use.

MEMBER: I would like to ask if there is an actual loss in churning hand separator cream when it is pasteurized?

PROF. MORTENSON: You have more casein in the butter, but will lose more fat in the buttermilk.

MEMBER: On account of the casein carrying off the fat, that is where the fat goes to. The more sour your cream is the higher it is pasteurized. The more acid you have in the cream after it is pasteurized the more loss you have.

PROF. MORTENSON: The acidity changes the character of the curd. The casein is combined with the calcium salts in the milk, calcium casein. This Prof. Farrington might explain better. As the acid is produced you have eventually calcium free casein, as the acid combines with the calcium acid. When more acid develops it combines with the casein and forms what is known as sour milk curd. After the latter point has been reacted in cream we find that the loss of fat is less by pasteurization than when we are dealing with the other curd. We obtain the greatest loss when pasteurizing cream containing from .3 to .4% acid.

MR. H. H. WHITING: Don't you find that where you have real sour cream that by using the continuous pasteurizer and increasing the speed of it and heating it at a higher temperature you get better results?
Prof. Mortenson: We are carrying on a series of experiments in pasteurization. We have at the present time close to 100 samples in cold storage, but we find that the highest scores we are getting are from cream that has been heated at about 145, and we are getting the lowest scores from cream that is heated by the flash heat up to 185. We are having chemical analyses made from all of those tubs. It looks to me that it is possible that the curd content will be different, that is what we are also watching. There is one thing I will say about pasteurized butter we have found that the pasteurized butter has a less pronounced cold storage flavor, so it shows that it has better keeping qualities.

Member: Is it possible to develop a lactic acid flavor in butter without producing lactic acid?

Prof. Mortenson: The starters we have worked with have produced lactic acid. I have not seen a single one that does not produce acid.

Mr. E. Ericsson, St. Paul: No, I have never found any. I am sure that the bacteria we want in butter produces lactic acid in pretty good amounts. Of course it would be a very good thing if we could get lactic acid bacteria without the acid. We don’t want the acid, but we want the bacteria in the butter.

Mr. P. Martin, Genoa: Isn’t lactic acid a good thing in cream ripening?

Prof. Mortenson: Yes.

Mr. Charles E. McNeill, Chicago: Mr. Mortenson, what is this storage flavor you refer to in the butter?

Prof. Mortenson: This is a flavor peculiar to storage butter, very little is known in reference to it. Some of the butter has a pronounced storage flavor two months after it has been left in storage. A good deal of butter manufactured from raw cream had a pronounced cold storage flavor.

Mr. McNeill: That was not on the order of the fishy flavor at all?

Prof. Mortenson: No, fishy flavor often develops in butter immediately after it has been made.

Mr. E. L. Aderhold, Neenah: What percentage of bacteria are destroyed in pasteurization?
Prof. Mortenson: I could not say. In accordance with the work that they have done in Denmark from 95 to 99 per cent of the bacteria are destroyed in the pasteurization of sweet cream. Now, notwithstanding that we have had such a high bacterial count in the sour cream, at the same time we destroyed by pasteurizing the sour cream from 96 to 99.99 of the bacteria present. The most of the bacteria we have in the sour cream are lactic acid bacteria. There are, however, many spore bearing bacteria that will remain active after being exposed to 185 degrees of heat.

Mr. Adendorf: Take sweet cream that has been produced in a reasonably clean way, to what extent is that seeded with bacterial germs?

Prof. Mortenson: You ought, by pasteurization, to reduce the count to two or three thousand.

Mr. Adendorf: Do you think there will be less by washing the separator once a day instead of once every other day?

Prof. Mortenson: This reminds me of a story. There was an old bachelor that was living on the Iowa dairy and he was cooking his own meals. He had a couple of plates, and in the morning he would use those plates, and at noon and in the evening without washing them, and the next day he would turn them over. A woman will never think of putting the same plates on the table more than once before they are cleaned. She would not, if she understands the relation between the two, think of using the separator twice without washing. She will never think of using without washing the separator in the morning that has been used in the evening for skimming the cream. I think this is a matter we can easily make plain to the farmers.

Mr. H. H. Whiting, Cedarburg: How would you run the acid for storage butter?

Mr. Mortenson: I would not run the acid as high for storage butter as for butter that is to be sold soon. I would ripen 20% cream to .6% acidity when ripened for storage; to .7% acid if it has to be consumed immediately.

Mr. Whiting: With 30% butter fat you would want it a little lower?

Prof. Mortenson: Yes.
MR. WHITING: Have you had any experience with that oxidizing system?

PROF. MORTENSON: It didn’t look good to me on the face of it so I left that for somebody else to work out. I don’t pay as much attention to it as I used to. We have come to that point in Iowa where we can insist that the farmer improve the sour cream.

MR. ADERHOLD: I am very glad to hear that in Iowa they are washing their cream separators twice a day. It makes me feel encouraged. You know, I believe, if Mr. Mortenson were to call on a hundred dairymen in Iowa unexpectedly on a certain day that from one-third to two-thirds of these men would tell him that they just happened to skip washing on that day. (Laughter and applause.)

PROF. MORTENSON: I am an Iowa man and I have a whole lot more confidence in Iowa people. (Applause.)

MR. ADERHOLD: So far as I know the Wisconsin farmers are washing their separators twice a day.

PROF. MORTENSON: I believe that the Wisconsin farmers are. If I had more time I should certainly like to stay here for two weeks and visit the farmers and their wives. I believe that 95% of the Wisconsin people are washing their separators twice a day. When coming here last evening, I made up my mind that if I had to leave Iowa this is the state that is most like Iowa. (Laughter.) I have confidence in Iowa people and I have the same confidence in the Wisconsin brothers and sisters.

MR. M. H. MEYER, Madison: Especially the sisters.

MR. H. C. LARSON, Madison: I want to bring out one thought that Prof. Mortenson suggested in his address, and that is this, that if every buttermaker would bring it to the patron’s attention and to the attention of his wife, to make the comparison of washing the dishes every time they are used, I think the separators would be washed every time they are used.

MR. GUY SPEIRS, Eau Claire: There is another point I would like to call to your attention: We hear a good deal about quality and you can’t get the cream. We have used this year about 40,000 gallons of sweet cream and I don’t have one bit of trouble in get-
ting all of the sweet cream I want when I pay three cents over the
price of the sour cream. (Applause.)

SECRETARY BENKENDORF: I have a few things I want to call
your attention to. You all know Mr. Wolff. He is down in Ar-
kanas and he sends this telegram:

Camden, Ark., 2-18-12.

"Wisconsin Buttermakers' Association,
Green Bay, Wisconsin.
My sincere regret not being with you at this your annual meet-
ing. Accept my best wishes for your future.

J. T. WOLFF."

I have a letter from Mr. Cannon, secretary of the Citizens' Business League, in which he says:

Milwaukee, Wis., February 2nd, 1912.

Mr. G. H. BENKENDORF, Sec'y.,
Wisconsin Buttermakers' Ass'n.,
Madison, Wis.

Dear Sir:

The Citizens' Business League extends a cordial invitation to
the Wisconsin Buttermakers' Association to hold its next conven-
tion in Milwaukee. We feel that from many points of view this
invitation should appeal to you.

It is now a number of years, since your organization met at
Milwaukee. We believe your members enjoy a trip to the metropo-
lis from time to time. A city of the city of Milwaukee, has
many attractive features, which are appreciated by the delegates
to conventions. Within recent years, it has become the habit of
many of the state organizations, to meet in Milwaukee annually.

Milwaukee has every accommodation and facility to care for
your convention. Our hotel accommodations are ample and excel-
 lent. Our beautiful new Auditorium is an ideal structure for
meeting and exhibit purposes. It has numerous small halls and
committee rooms. Our hotels all have meeting halls, also...

We believe there is a strong sentiment among your member-
ship, in favor of meeting here, and we hasten to assure you that
Milwaukee will be glad to provide all the requirements necessary, in the way of donation to the premium fund, free halls, etc., which your organization is in the habit of receiving.

Wishing you a successful convention, we are,

Yours very truly,

F. A. CANNON, Secretary.

Milwaukee, Wis., Feb. 7th, 1912.

G. H. BENKENDORF,
Sec., Wis. Buttermakers' Association, Beamont Hotel,
Greenbay, Wis.

Don't forget that Milwaukee wants you to meet here in 1913, you owe a return visit to the metropolis; we guarantee you usual contribution to premium fund and free hall for exhibit and meetings.

F. A. CANNON,
Sec'y., Citizens' Business League, Milwaukee, Wis.

According to the program it is necessary that all parties that want to be eligible to district prizes, register at the Secretary's office immediately after this meeting. If anybody has not registered, we shall be glad to have him do so.

The Chairman of the Entertainment Committee wishes me to announce that if any supply man has not been asked to contribute toward the entertainment they will be glad to meet him and accept a contribution. This donation will be printed in the annual report, and the part of the money refunded which is not used.

Mr. Dillon is making special arrangements for the ladies.

Mr. BECKER: I move you that the letter of invitation extended by the Citizens' Business League of Milwaukee be not acted upon immediately, but that a referendum vote be taken so as to give your Executive Committee an idea where they are at. That the Secretary be instructed to receive his bids to hold the convention and to notify the members.

Which motion was duly seconded.
Mr. C. Tyler, West Depere: That belongs entirely to the Executive Committee.

Mr. H. C. Larson, Madison: Mr. Tyler's statement that it belongs to the Executive Committee applied to the Executive Board, which is composed of the officers of the Association and the Executive Committee.

Mr. Becker: In making that motion I only want to get an idea where the boys want to go, and that is the only way you can have a successful convention.

The Chairman: I believe that was most thoroughly thrashed out in Madison, and that is all left to our Executive Board.

Mr. E. J. Whitmore, Owatonna, Minn.: I think that with all the other buttermakers I received a card which asked us to indicate our choice for the convention, Green Bay or Milwaukee, and I believe all the other buttermakers got the same thing. I don't know who sent the cards out.

Mr. Becker: The idea of the motion is to give the Executive Committee an idea from the rank and file where they would like to go, then it gives them a chance to decide the best thing for the Association. For instance, if Madison was bidding for the convention and Milwaukee, we might send a letter out stating what the different cities were offering and then they could be guided by the majority, but it would give them an idea.

Mr. C. O'Dell, Wild Rose: I would like to ask Prof. Benkendorf whether the majority wanted to go to Milwaukee?

Secretary Benkendorf: The vote stood 180 votes in favor of Milwaukee and 160 votes, something like that, in favor of holding a winter meeting. But in looking over the votes there were quite a number of supply men and men not really buttermakers, who voted and some of the Executive Committee believed that it was according to the best judgment of the majority of the buttermakers that the vote was practically even. That is the way the matter stood. Personally I voted in favor of Milwaukee last October for the simple reason that I was guided by the 180 votes, but others of the Executive Committee voted in favor of the winter meeting because they thought the majority of the boys wanted the meeting held some time during the winter.
The Chairman: Are you ready for the question. It is moved that a referendum vote be taken where to hold the next convention and the Secretary be instructed to get inquiries what cities want this convention so that each buttermaker may know what he is voting for. That is to guide the Executive Committee in selecting the next meeting place. Where the majority wants to go would naturally be the next meeting place.

Motion carried.

The Chairman: The next on your program will be The Fat Standard of Butter, by H. R. Wright

The Butterfat Standard, Shall It Be 80 Per Cent or 82.5 Per Cent?

By H. R. Wright, Des Moines, Ia.

Mr. Wright: I never did begin an address with an apology, but I am going to. This is not my usual speech. I have a speech that I have inflicted on Iowa, but that is not the one I have on hand today. I am going to read it. I hope you will give me some credit for some of the things I have left out. If you are expecting a lot of figures you are going to be disappointed. Everybody knows that the National Creamery Buttermakers' Association has a committee engaged in looking after this question. When that Association gets together again that committee will report, so that I am not attempting to determine the matter finally.

Just at this time the question of a butterfat standard is purely an academic one. We are not now required to commit ourselves irrevocably to any particular percentage, nor indeed to any butterfat standard at all. But we shall do well to discuss it nevertheless for the reason that we now face a situation in Congress with the oleomargarine people wholly in the ascendancy, and we may be called upon most any day to declare ourselves for or against some particular standard that they, the enemy, may try to force upon us. We cannot afford, under the circumstances, to differ widely among ourselves. We cannot afford to devote ourselves so closely to some family quarrel that we shall have no time to give attention to the wiles of the oleomargarine supporters. So we shall do well to get a few things on the subject of standard fairly well in mind.