

WHITE LEAD PROMOTION PROGRAM**LEAD INDUSTRIES ASSOCIATION**

Greybar Building, 420 Lexington Avenue
New York, N. Y.

April 10, 1940

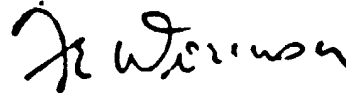
Bulletin No. 21.

Report of Agricultural
Service Division

To Members Supporting the White Lead
Promotion Program:

Attached please find (1) a summary progress report of
the activities of Messrs. Don Critchfield and Arlen Fischer
in the interests of white lead in our farm program and (2)
a copy of the outline being used in Iowa to interest 4-H Club
members in paint demonstrations.

Respectfully submitted,



Secretary



FIELD REPORT OF DON CRITCHFIELDJANUARY 1, 1940 to APRIL 1, 1940

With attendance at winter circuit lumber conventions (Ohio, Indiana, Minnesota and Iowa) as a background, Mr. Critchfield has been maintaining his close contacts with the various lumber associations, furthering the distribution of paint specification leaflets with lumber materials, as well as offering assistance in the preparation of manuals proposed by the various lumber associations (i.e. Joint Coast Lumbermen Association and Douglas Fir Plywood Association). Along this line he is suggesting to Prof. Van Vleet of the Iowa State College of Agriculture the publication of a circular to be entitled, HOW TO USE LUMBER ON THE FARM, with particular reference to plywood and paint.

In close cooperation with Prof. C. E. Van Vleet he has been instrumental in the nationwide distribution, proposed revisions, and in the development of a lesson outline of the Iowa State Agricultural College circular #261, SELECTING AND APPLYING PAINTS.

Circular #261 is now widely distributed among county agents, farm managers associations, lumber association memberships and 4-H clubs. In addition, many requests for additional copies have come from these sources.

This booklet has, likewise, been re-printed to date by Agricultural Colleges in 11 states for their own use as follows:

South Dakota	Iowa	Oyuning
Virginia	New Hampshire	Rhode Island
Maine	Louisiana	North Dakota
Nebraska		Nevada

The proposed revision of circular #261 is to include a section on interior painting. This may develop into the publication of a separate circular exclusively on interior painting.

The lesson outlines based on the booklet are for wide distribution among vocational agricultural teachers (Smith-Hughes Schools) to enhance its educational value.

Mr. Critchfield is supervising the development of 4-H Club paint demonstration work in the State of Iowa which is now in the hands of Arlen Fischer, our new employee. Mr. Fischer, formerly an active farmer near Council Bluffs, Iowa, has trained and coached the Council Bluffs 4-H Club which demonstrated paint selection and application at the 1939 Iowa State Fair. Mr. Critchfield is, likewise, investigating the possibility of extending this 4-H Club work to neighboring states, where state club leaders in extension departments of the Agricultural Colleges are requesting our services.

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Mr. Critchfield is in contact with the National Association of Woodwork Jobbers and the National Door Manufacturers Association concerning a standard specification for putty. When successfully solved as to application methods in glazing, the putty question will be taken up with the U. S. Building and Loan League of America, Realtors, etc.

As an experiment he is endeavoring to get the Consumer's Cooperative Association of Kansas City to use 100% ready-mixed white lead paint. The fact that the formula used by the manufacturer of the Iowa Farm Bureau paint is 80% carbonate of lead encourages us in the possibility that other consumer co-operatives can be enlisted in a higher lead content movement.

OBJECTIVES

1. To give 4-H Club members the opportunity of acquiring a practical knowledge and understanding of exterior paints and painting as it relates to the maintenance of farm homes and other farm buildings including:
 - a. The how and why of paint failures and the way to prevent them. (Fig. 8)
 - b. Developing the ability to judge the value of paints by considering their contents and formulation. (Fig. 4, 2, 5, 6, 7 and 14)
 - c. The proper application of paint, including the preliminary preparation, home mixing, and tinting. (Fig. 11 and 12)

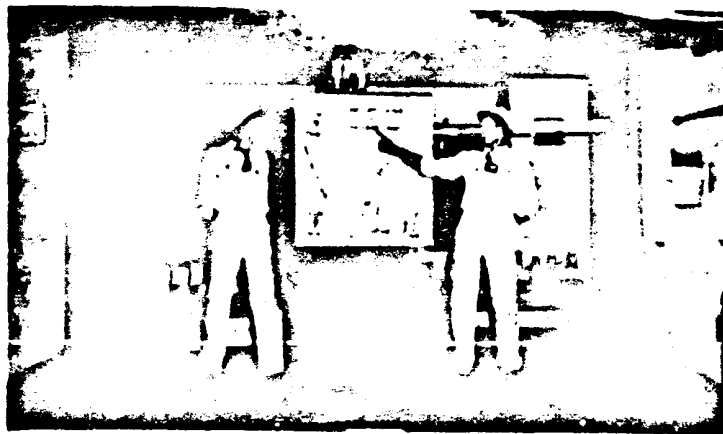


Fig. 1

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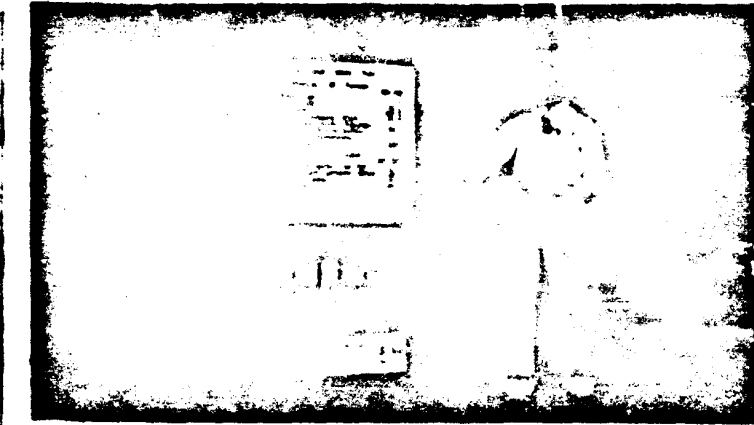


Fig. 2

2. To encourage 4-H Club members to pass on, by way of demonstration, new information and methods which would be of service to their community in keeping farm buildings efficiently and economically maintained; and in making the farm home a more beautiful and better place to live.

(Fig. 9, 10 and 13)

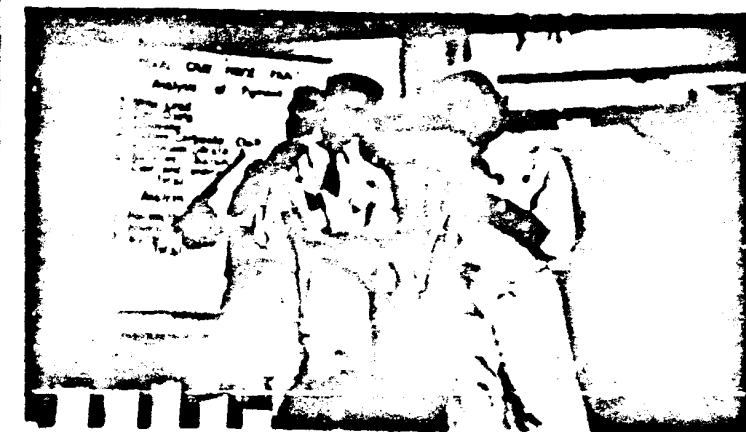


Fig. 3

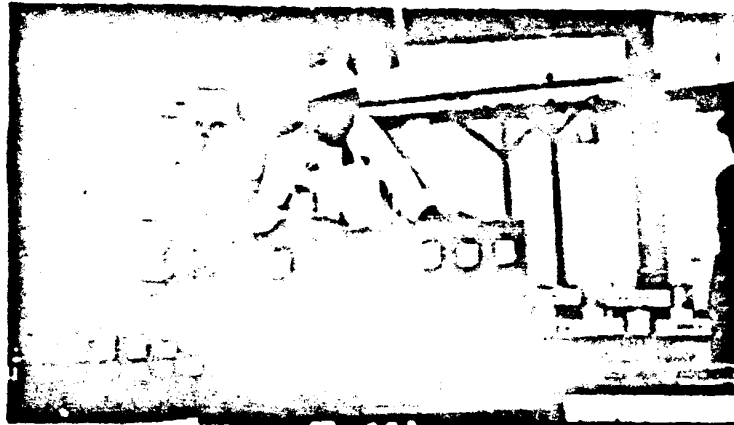


Fig. 4

3. To develop the ability in 4-H Club members to express themselves in public, thus giving them an experience which will be valuable no matter what vocation they may take up in the future. (Fig. 1 and 15)

4. To stimulate and develop within the 4-H Club members originality, clear thinking, sound reasoning and scientific approach in meeting farm problems on painting and building maintenance. (Fig. 4, 3 and 10)

SUGGESTED SUBJECTS FOR PAINT DEMONSTRATIONS

1. **SELECTING EXTERIOR PAINT**
 - a. A study of the different pigments and oils used in making paint, and the results of their use in paints.
 - b. A study of the different types of paint failures caused by improper paint formulation, and the way to prevent them.
2. **APPLYING EXTERIOR PAINT**
 - a. Identification and prevention of paint failures caused by improper application.
 - b. Adjusting paint to each kind of wood.
 - c. Equipment necessary for proper application.
 - d. Method and technic of using brush and spray gun.
3. **MIXING AND TINTING EXTERIOR PAINT**
 - a. Proper methods
 - b. The effect of colors on the beauty and durability in paint on farm homes and buildings.
4. **IDENTIFYING AND PREVENTING PAINT FAILURES IN EXTERIOR PAINTING**
 - a. Observations of the service rendered by different paints.
 - b. What a durable paint film will do.
 - c. Why some paint films are durable and why others are not.
 - d. How to prevent these failures when painting farm buildings.
 - e. How improper building construction causes paint failures.

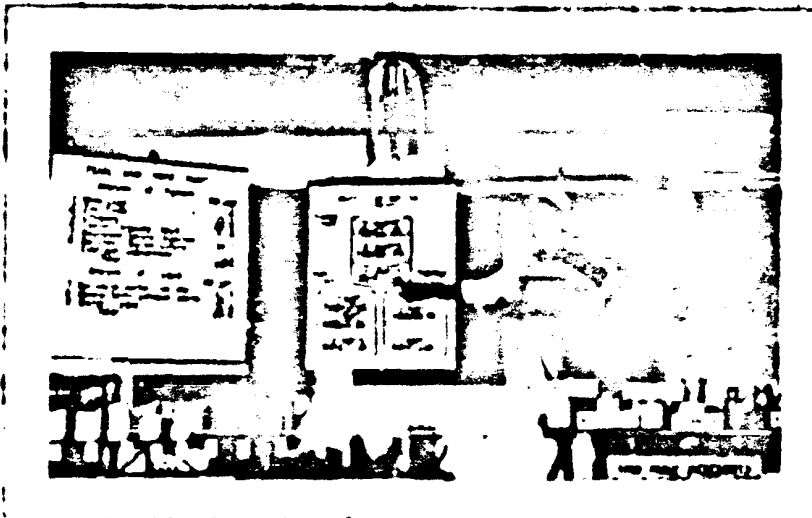


Fig. 5

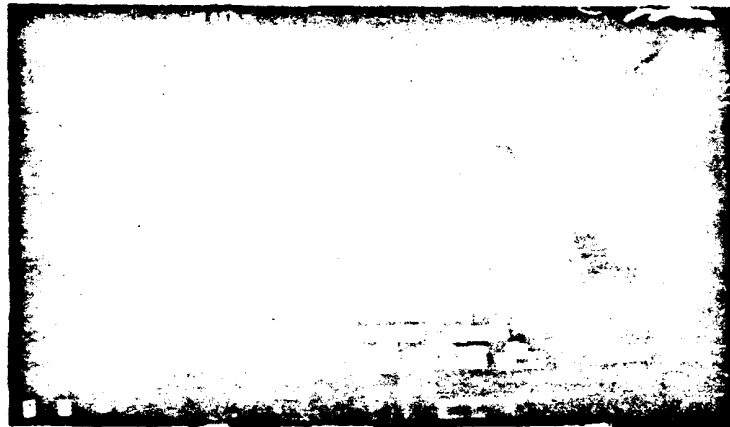


Fig. 6

5. ESTIMATING THE VALUE OF A PAINT JOB

- a. Why paint.
- b. Cost of the paint job. Durability of the paint an important consideration.
- c. Value received from painted farm homes and farm buildings.

6. HOW A PAINT JOB IS RUINED

- a. Demonstration of all the many wrong things that may be done in a paint job and the results.
- b. These things would be contrasted with the demonstration of right methods that should be used.

SUGGESTIONS FOR MANAGING A SUCCESSFUL DEMONSTRATION

The responsibility for a successful demonstration lies with two eligible 4-H Club members and a coach. It is nearly always impractical for the team to go ahead without the help of a coach.

The subject selected for demonstration should be interesting and appealing to both the team and coach, should have a place for practical application on the farm, and be of community interest.

SUGGESTED STEPS IN WORKING OUT A DEMONSTRATION

1. After the team and coach are selected the first thing to do is to get all the information possible on the selected subject.
2. Then organize and outline the material to be used in the demonstration.
 - a. Divide the demonstration work equally between the two boys on the team.
 - b. List the charts and other equipment necessary and get them ready for use in practice as soon as possible.
3. Continually improve the outline and organization of the demonstration with each practice.
4. The demonstration should be practiced until the team is able to give every part of it with ease, and confidence. To be effective the team must achieve its objective in perfecting the demonstration as far as their selected subject is concerned.
5. The team members should know their subject well enough to be able to answer with ease and confidence any questions about their demonstration subject, which may be asked by either the judge or audience at the close of the demonstration.
6. The team members should get some personal experience in doing the thing they are demonstrating by making practical application on buildings they may observe in their neighborhood sometime during the year before entering any contests.

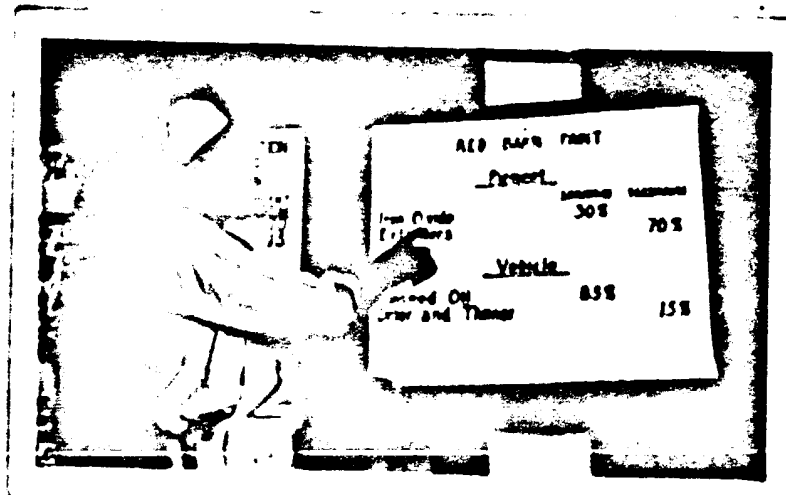


Fig. 7

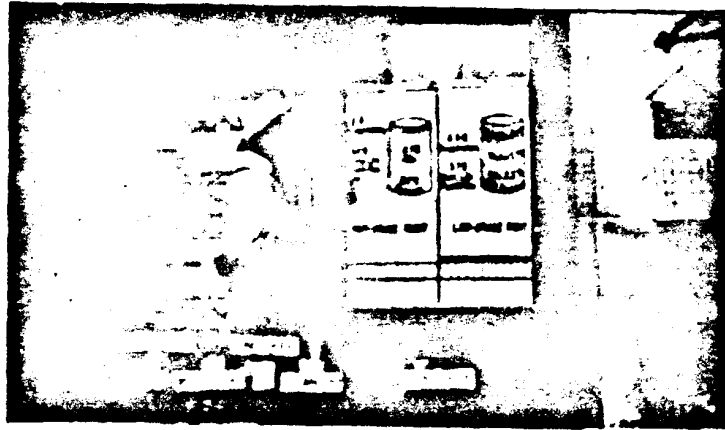


Fig. 8

GENERAL SUGGESTIONS

1. Make every part of the demonstration as practical as possible and let it be demonstrated with all the originality possessed by the team and coach.
2. All important points should be demonstrated by actually doing the thing concerned, and by the use of miniature models where possible. Enlarged pictures have their place if used properly. To show necessary printed matter such as paint formulas and necessary diagrams, charts can be used effectively.
3. Do not permit the demonstration to develop into an "illustrated lecture" by omitting the necessary action of demonstrating and teamwork.
4. Team members should speak distinctly and loud enough so that all members of the audience will be able to hear.
5. Team members should not memorize their demonstration word for word, but should memorize their outline of subjects in the proper sequence so each point is explained and demonstrated in proper relation to preceding points being emphasized.

PART C

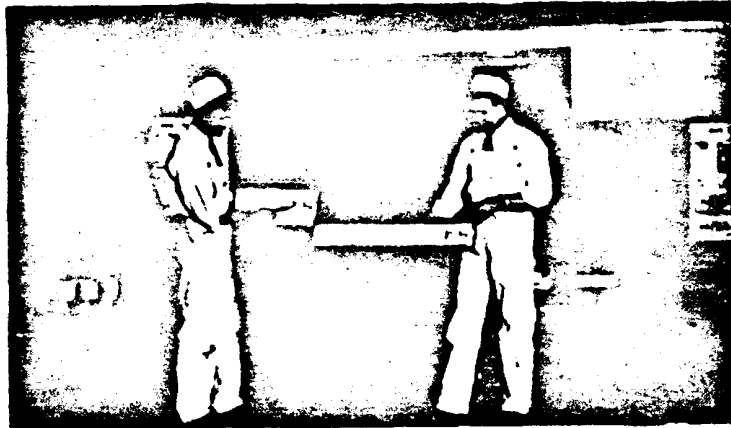
6. Lettering on charts and the demonstrating equipment itself should be large enough to be seen and understood by all members of the largest audience that may possibly attend the demonstration.
7. Each important step in the demonstration should be clearly explained and demonstrated, point by point.
8. The selected subject should be as completely and thoroughly covered as possible within the allotted time.
9. A good demonstration will usually take up more than fifteen minutes, but generally does not last longer than twenty-five minutes.
10. The demonstration may be made more effective and attractive if the team members are dressed to suit the subject that they are demonstrating - (Painter's caps and overalls).

REFERENCES AND SOURCES OF INFORMATION

1. Selecting and Applying Paints--Extension Circular 261---Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa.
2. What to Expect from White Lead Paint---Lead Industries Assoc., 420 Lexington Ave., New York City, N. Y.

	PAINT	PAINT & PUTTY
1000 sq. ft.	2000 sq. ft.	2000 sq. ft.
Prime Coat	3 Gal.	6 Gal.
Second Coat	6 Gal.	12 Gal.
Putty	0.50	1.50
Paint	14.00	16.20
Putty	0.50	1.50
Sub. Coat	1.50	2.50
Putty	0.50	1.50
Total		133.10

Fig. 9



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Fig. 10

3. Books for 4-H Club purposes describing uses of white lead.

- (a) The Eagle-Picher Sales Co., Cincinnati, Ohio.
- (b) S. P. Fuller & Co., San Francisco, Cal.
- (c) International Smelting & Refining Co. (Anaconda)
Chicago, Ill.
- (d) John R. MacGregor Lead Co., Chicago, Ill.
- (e) National Lead Co., St. Louis, Mo.

4. Construction Defects, Circular No. 428-Educational Bureau,
National Paint, Varnish & Lacquer Assoc., Washington, D.C.

- 5. Painting Your House.
- 6. When and How to Paint Homes and Farm Buildings.
- 7. Some Causes of Blistering and Peeling of Paint on House
Siding.
- 8. The Program of Paint Maintenance for the Frame House.
- 9. What Can Be Done to Make Paint Maintenance More Successful.
- 10. Repainting the Paint-Neglected House.
---U.S. Forest Products Laboratory, Madison, Wisconsin.
- 11. Painting Specifications - Painting and Decorating Contractors
of America, Oklahoma City, Okla.
- 12. Paint Bulletin No. 59 - Office of the State Food Com-
missioner and Chemist, Bismarck, North Dakota.
- 13. Training for the Painting and Decorating Trade - U. S.
Dept. of Interior, Office of Education, Washington, 1934.
- 14. Painting on the Farm, Bulletin No. 1457 - U. S. Depart-
ment of Agriculture, Washington, D. C.
- 15. "Uses of Spirits of Gum Turpentine" - American Turpentine
Farmers Association Cooperative, Valveston, Ga.

MATERIALS FURNISHED FOR PAINT DEMONSTRATIONS

Two kits are available. Materials of both kits will come in strong, handy, Douglas Fir plywood trunks. Each one will be loaned to the team that is interested in demonstrating the general phase of painting named on the kit. Materials found in the kits are as follows:

SELECTION AND MIXING KIT

Samples of pigments as follows:	2 cedar siding note books
1 qt. White Lead powder	1 roll of black paper
1 pt. Zinc Oxide	8 yds. of sign cloth
1 pt. Titanium Dioxide	3 jars of show card color, black, red and white.
1 pt. Lithopone	1 show card color brush
1 pt. Calcium Carbonate	1 glass mixing jar
1 pt. Barium Sulfate	1 measuring cup
1 pt. Silica	3 tubes of tinting colors, red, blue and yellow.
1 pt. Aluminum Silicate	MATERIAL TO BE FURNISHED BY THE TEAM TO BE USED WITH EACH KIT
1 pt. Calcium Sulfate	Small keg of White Lead paste (12½ lbs. or 25 lbs.)
1 gal. Magnesium Silicate	1 gal. of Linseed Oil
1 qt. Iron Oxide	½ gal. of Turpentine
1 pt. Red Lead Powder	1 3" paint brush
1 pt. Blue Lead Powder	

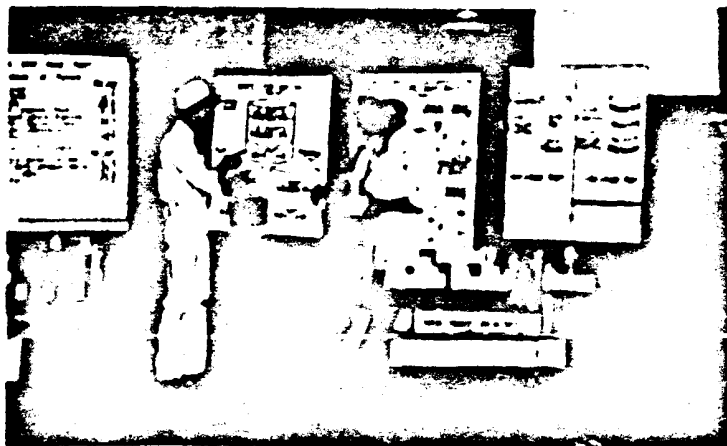


Fig. 11

MATERIALS FURNISHED FOR PAINT DEMONSTRATIONS

Fig. 12

APPLICATION AND MIXING KIT

- | | |
|------------------------------|----------------------------|
| 1 bundle of siding | 2 cedar siding note books |
| 1 paint brush | 1 roll of black paper |
| 1 gal. of Magnesium Silicate | 8 yds. of sign cloth |
| 1 qt. of Iron Oxide | 3 jars of show card color, |
| 1 pt. of Red Lead powder | black, red and white |
| 1 pt of Sublimed Blue Lead | 2 show card color brushes |
| | 1 glass mixing jar |
| | 1 measuring cup |
| | 3 tubes of tinting colors, |
| | red, yellow and blue. |

**MATERIAL TO BE FURNISHED BY THE TEAM
TO BE USED WITH EACH KIT**

- Small keg of White Lead paste
(12½ lbs. or 25 lbs.),
- 1 gal. of Linseed Oil
- ½ gal. of Turpentine
- 1 3¼" paint brush

ELIGIBILITY OF TEAM MEMBERS

1. Each member of the team must be a 4-H Club member enrolled in a project of some kind in his club during the current year.
2. 4-H Club members with formal education beyond that of High School in courses of agriculture or Agricultural Engineering will not be eligible to take part in the contest.
3. Members of any previous State Champion Demonstration Team on the subject of point will not be eligible to compete.

JUDGES

Competent judges for the District and State contests will be secured by the State Club Office, with the State Fair Board cooperating.



Fig. 13

Part 13

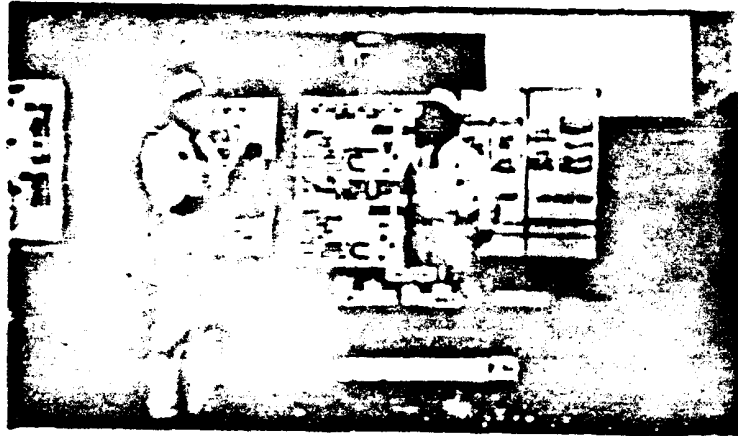


Fig. 14

SYSTEM OF AWARDS FOR PAINT DEMONSTRATIONS

DISTRICT CONTESTS

The State is to be divided into four or five Districts, depending upon the number of paint demonstration teams. Each county will probably be limited to one entry in the District Contest. The District Contests of these four or five Districts are to be held at the Iowa State Fair on Friday and Saturday of the first week.

STATE CONTEST

The State Contest is to be held the following week and will be a contest between the winners of each District.

DISTRICT CONTEST AWARDS

- I. The Champion Team in each District will receive as an award, a trip to the 4-H Boys' Short Course at Ames, and will be eligible to enter the State Contest.
- II. All other members of the District teams will be presented with watch fob medals, which will name their placing in the District Contest.
- III. The coach of each District Champion Team will be presented with a watch chain as an award.

STATE CONTEST AWARDS

- I. The Champion Team of the State Contest is to be awarded an educational and sight-seeing trip relating to the paint industry, such as a visit to the lead mines, lead plants, and other places of interest which the sponsor may name.
- II. As additional awards, each member of the teams taking part in the State Contest will be presented with watch fob medals, which will name their placing in the State Contest. (These medals are to be of a higher grade than those presented in the District Contest awards).
- III. The coach of the State Champion Team will be awarded the same educational trip as his team and will be invited to go along with them on the trip.

CASH AWARDS

- I. The State Fair Board is to furnish \$30 in cash awards to the District teams. This is to be pro-rated on the basis of ten teams competing, and is in care of the State Club Office.

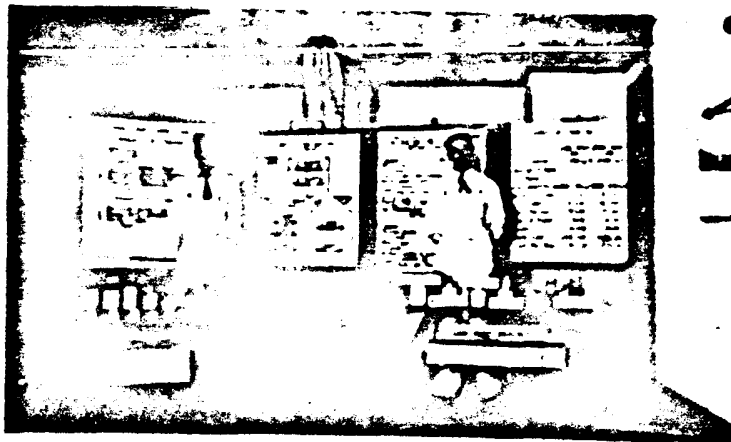


Fig. 15