The Struggle Against Lead Poison in the Painting Trade

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by

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DEDICATION

THIS booklet is dedicated firstly to all those men, professional and technical, who contributed so much in their respective spheres to create a position where house painters may follow their calling with the knowledge that their health and life is being protected and with the confidence that in time the dread scourge of lead poison will have disappeared from their occupation forever; secondly, but by no means least, to thousands of members of the Painters' Union, whose endurance and determination finally registered their victory in the virtual abolition of lead paint in the house painting trade in Queensland.

A Tribute from Abroad

Mr. J. J. Gilhooley, Assistant Secretary to the U.S.A. Department of Labor, replying on 25/11/57 to correspondence from the Union seeking information of latest developments on the lead question in the U.S.A. had this to say:—

"Queensland has apparently gone much further in prohibiting the use of lead in paints than we have. There is no Federal prohibition against lead paints and I know of no State laws or local ordinances prohibiting their use . . .

"I think your organisation should be commended for your efforts in calling attention to the hazards of lead in paints and in your efforts to eliminate or control the hazards."

Preface . . . .

This is not a scientific work, its presentation having been made as simple as possible in order that its contents may be clearly understood by all. It is, however, based on scientific and technical facts long since proven in experiment and practice by members of the medical profession and tradesmen painters in their respective spheres of life.

This booklet seeks to remind Union members of the danger of lead poison and to relate the long struggle necessary to obtain the legislation which virtually prohibited lead as a paint pigment in the house painting trade in Queensland.

In 1950, my first publication of this nature entitled "The Case Against Lead Paint and for Its Prohibition by Parliamentary Action" issued as a Memorial to the Late R. G. (Bob) Gardiner (who had just died of lead poison), clearly set out the Union's case for the abolition of lead as a paint pigment and highlighted a long and sustained campaign in support of this objective.

The history of the painters' struggle against lead poison since the issue of the 1950 booklet, culminating in the historic legislation which became law on 14/1/56, together with most of the material contained in the earlier publication, forms the main basis of this booklet, time having proved how correct that earlier material was by the small number of alterations now necessary.

The virtual abolition of lead paint in the house painting trade in Queensland constitutes one of the most remarkable victories of its character in Australian Trade Union history, and was won despite bitter opposition from powerful quarters including the lead producers and manufacturers.

It is therefore necessary to be vigilant to ensure that this life-giving reform cannot be wrested from us by the interests who profited from the use of lead in paint over such a long period of years.

E. J. Hanson

Trades Hall, Brisbane. April, 1958.

The Executive of the Operative Painters & Decorators' Union of Australia

(QUEENSLAND BRANCH)

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Health Act Provisions on Prohibition of Lead Paints

Amendments of the Queensland Health Act introduced into the State Parliament on the 11th November, 1955, became law on the 14th January, 1956, and thus the lengthy campaign conducted by the Painters' Union over half a century for the abolition of lead paints reached an historic and successful conclusion.

This is the first legislation of its nature outside of the Soviet Union and France and sets a new standard in a campaign of this character. Palliatives and "half a loaf" could not be accepted by the painters when "the whole of the loaf" was the only way to protect their health and life.

The main points of the legislation are:—

(1) The manufacture, sale and use of paint containing basic lead carbonate (white lead) is banned in its entirety.

(2) Paint containing lead of any description cannot be used on the roof of a house or other building or structure; any exterior portion of any house or other building whatsoever; any fence or gates whatsoever; any interior portion whatsoever of a house; or any household furniture.

(3) Paint containing not more than 5% soluble lead chromate may be used on certain places but shall not be used on any exterior portion of a building which is accessible to children under fourteen years of age.

The Amendments of the Queensland Health Act in Parliament

The legislation which virtually abolished lead in the house painting trade in Queensland was passed through the State Parliament without opposition or amendment. It was fully supported by all three political parties of the day and the Independents.

Here are some extracts from the debate:—

The Honourable W. M. Moore (A.L.P. Minister for Health & Home Affairs) in introducing the Bill—

"Our goal is now in sight. With the passing of the Bill to prevent the manufacture, sale and use of paint containing white lead, we can confidently look forward to the day when there will not be any white lead on any house in the State." (Hansard No. 18, p. 1295, 11/11/55.)

Dr. Noble (Liberal, member of the Opposition, but now Minister for Health & Home Affairs), speaking on the first reading—

"I think every Honourable member on this side of the Chamber, in view of the implications of lead poisoning and the serious results which can be brought about by the ingestion of lead by children from houses, will agree that it is very necessary legislation." (Hansard No. 18, p. 1296, 11/11/55.)

Dr. Dittmer (A.L.P.), speaking on the first reading—

"The use of lead pigments in paint is gradually disappearing and in the metallurgical field the use of iron oxide, ferrous compounds, zinc chromate and aluminium paint has taken the place of lead . . . " (Hansard No. 18, p. 1297, 11/11/55.)

The Honourable G. F. R. Nicklin (then Leader of the Opposition, now Premier in the Country-Liberal Government)—

"The measure is highly desirable and I believe it will help to deal with a problem that has caused serious concern."

"This is useful legislation designed for the humane purpose of protecting the health of the community, particularly that of our young children who are usually the sufferers as a result of the use of paint containing white lead." (Hansard No. 20, p. 1403/4, 17/11/55.)

The Struggle Against Lead Poison in the Painting Trade

LEAD AS PAINT PIGMENT

LEAD is a metal which is very important to mankind. It is found in large deposits in nature, is economic to produce and is soft and durable. These factors make it an extremely valuable metal and it is extensively used in many industries.

It readily forms compounds with other elements, and it is in the form of some of its salts, mainly lead carbonate or white lead that it has been extensively used as a paint pigment for many centuries.

White lead combines readily with linseed oil and turpentine, the main vehicles used in the painting trade, and the paint produced is durable, economic and covers well. Until recent years it was unchallenged as the main paint pigment.

LEAD IS A POISON

With all its virtues, lead has one great failing. In all its forms it is poisonous to animal life, including mankind, and because of its widespread use and poisonous character, care is needed to protect the health and well-being of those who come in contact with it. This liability alone more than outweighs all the virtues which lead paint possesses. Lead carbonate, or white lead, constitutes the main hazard of lead poisoning in the painting trade.

Industrial hazards (including lead poison) can be dealt with by several means. Firstly, by the elimination of the hazard and its substitution by non-poisonous materials, or safe methods of work. Secondly, by greater attention to industrial hygiene or safety measures if the elimination of the hazard is not possible.

The passage of time has proved the correctness of the union's claim that lead poison belonged to the first of these alternatives, for lead paint has now been replaced by non-poisonous pigments which are economic, durable and easily applied.

A TWO-FOLD DANGER — CHILDREN AND PAINTERS

In Queensland the incidence of lead poison from lead paints has been much higher than in the Southern States of Australia. This arises from two main factors; firstly, climatic conditions, and secondly, architectural construction of our houses.

Until recent years, houses of brick, stone and fibro-cement, etc., were quite uncommon, the vast majority being built of timber, all of which requires painting to protect it from the weather. The painter thus spent a greater portion of his time in lead hazard operations by the application of paint and the cleaning down and removal of old paint work than if the houses were built of stone, brick, etc.

Lead paint has a peculiarity which makes it "ideal" as a poisoning agent. As the oil dries out with exposure to the weather, the lead powders, this process being more rapid in Queensland's tropical heat than in more temperate climates.

From the moment when the paint commences to lose the oil, the surface exposed to the weather becomes a fine film of lead dust—easily removable on the fingers or the hands, and highly soluble in the human body.

It is this lead dust on verandah rails and other accessible places which produced such a high incidence of lead poison among children, and caused so many fatalities in past years.

HOW LEAD ENTERS THE BODY

Lead presents no danger until it enters the body. Entry through the skin is unlikely in the painting trade, but entry does occur through the stomach and the lungs.

Lead can enter the stomach in many ways, e.g. through being taken in food or water or through swallowing lead dust; from the hands through handling food or by biting the fingernails—this latter being particularly so with children. Entry through the lungs is most dangerous and most of the lead which the painter absorbs enters his body through the lungs during burning off operations and cleaning down lead paint surfaces.

HOW THE BODY IS POISONED

To do its damage, lead must enter the bloodstream where it damages the elastic inner lining of the blood vessels, mainly small arteries. When damage of this kind to blood vessels occurs, the kidneys become affected in nearly all cases.

Of lead entering the body through the stomach, much is discharged through natural processes in the normal healthy and well nourished person. However, some of it is absorbed into the bloodstream AS IS ALL LEAD WHICH ENTERS THE BODY THROUGH THE LUNGS.

Each one of us is continually absorbing and excreting very small quantities of lead every day, which the body can easily handle, but damage is caused by larger quantities of lead and is permanent. THIS DAMAGE CAN NEVER BE REPAIRED.

The body cannot distinguish between lead and calcium (lime) when lead is in the bloodstream. Calcium (a mineral vital to the body, particularly in building bones and tissues) and lead are each treated the same way. The body deposits all that it needs

in the various tissues (mainly in bone) and excretes what is not necessary.

The lead so deposited cannot cause any damage whilst in the bones, but represents a potential and constant menace.

Any sickness, even influenza, any real, though temporary, weakness in the body will enable the lead to come back into the bloodstream, and thus again attack the already-damaged blood vessels.

LEAD ABSORPTION IN PAINTERS

In the order of hazard, the operations involved in which the painter absorbs lead are:—

Firstly, by breathing in lead fumes during burning-off operations, and in burning out dirty paint pots. In these operations the atmosphere is thick with lead fumes—THE BREATHING OF WHICH INTO THE LUNGS CANNOT BE AVOIDED.

Secondly, in cleaning down weathered lead paint preparatory to repainting operations, particularly after burning off old lead paint. The air is full of lead dust, which enters the lungs in breathing, although some enters the stomach through the mouth.

The introduction of power sanders to clean down old paint work has created an additional problem. These sanders will undoubtedly be used on lead paint surfaces and the fine flour dust thus produced creates a hazard second only to that caused by lead fumes.

Thirdly, when actually handling lead paint where some of the lead on the hands is transferred to food, or eating and drinking utensils. By this means the lead enters the stomach.

Lead may also enter the body through nail-biting, or by rolling cigarettes or filling pipes with lead-soiled hands. In this latter case, the lead is "mixed" with the tobacco, and the cigarette or pipe becomes a "miniature blast furnace", the lead fumes going direct to the lungs.

SMALL DOSES AT INFREQUENT INTERVALS

Even when lead paint was all the "vogue", the painter did not spend all his time in operations on, or in connection with, lead paint. A proportion of his time is spent using water paints, lime wash, enamels, varnishes and on paper hanging, etc., all of which operations are lead free.

Consequently, he spends periods away from operations containing a lead hazard, and for this reason the absorption of lead by painters is by relatively small doses at infrequent intervals, the damage to the body therefore being slow and insidious.

So insidious are the effects of lead poison on the painter that, in the main, he has no real knowledge of any illness until the disease is well advanced.

Even when some symptoms occur fairly early, through some

special susceptibility of the individual, all that the medical profession can do is to purge the body of any lead deposited in the tissues, but if the damage to the blood vessels or other organs is advanced to any extent, no cure can be effected.

MEDICAL ASPECTS OF LEAD POISONING IN PAINTERS

In industries such as battery making and lead smelting, where the absorption of lead fumes is in large and regular doses, the effect of the lead so absorbed is very quickly seen, the worker suffering from industrial plumbism or lead poison.

In the case of the painter, where the onset of the disease is insidious, plumbism or lead poison is seldom, if ever, the form which the disease takes. Almost without exception the painter suffers from some "sequela" of lead poison.

According to the Oxford Dictionary a "Sequela" is "a morbid condition or symptom following upon some disease" i.e. a sequel to the original disease.

Once the organs have been damaged, the foundation is laid for other diseases. For instance, damage to the arteries leads to hardened arteries or arterio-sclerosis; whilst damage to the kidneys leads to Bright's Disease or Chronic Nephritis.

Each of these diseases is then a "sequela" of the original lead poison and each in turn may lead to other diseases e.g. Bright's Disease may give rise to Ureamia, which is invariably fatal.

More likely than not the "sequelae" from which the painters suffer are so diagnosed long after the lead which has caused the disease has been excreted from the body, or deposited in the bones.

In fact, when a sufferer in the painting trade is diagnosed as suffering from a "sequela" of lead poison, very seldom is there any lead, at that time, in circulation in his body.

In only a few of the many successful compensation cases handled by the Union has there been any evidence of lead in circulation in the body at the time.

On the other hand, lead may remain deposited in the bones of the body for a lengthy period, for twenty years or longer, without causing any damage, but can at any time return to the bloodstream and do its damage all over again.

It will thus be seen that the industrial peculiarities of the painting trade present special medical and other problems in regard to lead poison as contained in no other lead-using industry.

COMPENSATION FOR LEAD POISON

In Queensland lead poison is compensational. The history of the Union is rich with its successful advocacy of the right of compensation for members, or their dependents, who suffered from lead poison itself, or any "sequelae". In this regard the Union was assisted tremendously by members of the medical profession and its legal advisers.

An important step forward on compensation for lead poison was the publication by the Queensland State Government of the **"Reports of Enquiry Into Lead Poisoning and Its Incidence at Mt. Isa, Queensland, May, 1933".**

The high incidence of lead poison during the operations of Mt. Isa Mines Limited in its silver lead mining and smelting operations made the enquiry necessary.

The Government appointed a Commission of Enquiry comprising J. A. Watson, State Insurance Commissioner, and Dr. J. V. Duhig (M.B.), Government Pathologist, to enquire and report on this matter, the medical section of the enquiry and report being carried out by Dr. J. V. Duhig.

Whilst the report dealt primarily with the lead hazard in mining and smelting operations at Mt. Isa, it contained much valuable data concerning the lead question in general and laid the foundation of the policy of the State Government Insurance Office on compensation for all lead-using industries from then on. The recommendations contained in Dr. Duhig's medical report on this matter substantially broadened the scope of compensation for lead poison in general, including the painting trade.

However, it must be stressed that no matter how liberal the compensation provisions are, or how successful the Union is in this regard, NO AMOUNT OF MONEY CAN IN ANY WAY COMPENSATE THE POISONED WORKER, OR THE DEPENDENTS OF A LEAD FATALITY.

A TRIBUTE

Most medical men concentrated on the problem of non-industrial lead poison from lead paint on houses, including both children and adults. There are, however, several doctors who, whilst not neglecting the non-industrial side, played an outstanding part in the detection and diagnosis of lead poison in industry. By so doing they assisted the union to gain the experience which enabled it to develop the campaign for the abolition of lead as a paint pigment.

Outstanding amongst these was Dr. J. V. Duhig, who, above all others assisted union officers to gain the knowledge necessary to achieve victory in the campaign.

Most unions are indebted to Dr. Duhig in one form or another for the tremendous assistance he rendered on industrial disease and industrial hygiene. The Painters' Union, above all, is indebted to him for the outstanding contribution he made in the field of industrial lead poison without which the union would have found the campaign much more difficult to wage and win.

Other doctors who are deserving of special mention for the assistance they rendered to the union are the late Dr. Sol Julius, Assistant Medical Superintendent of the Brisbane General Hospital, Dr. (now Professor) Douglas Gordon, Director of Industrial Medicine in the State Health Department for a number of years,

and Dr. L. J. Jarvis Nye who as long ago as 1933 in his book **"Chronic Nephritis and Lead Poisoning"** called for the abolition of lead paints as the only solution to the problem.

PERSONAL AND INDUSTRIAL HYGIENE

Union members should always pay strict attention to both personal and industrial hygiene, even if engaged on work where no specific hazard exists. The worker owes this to himself and his family, and the following points can be of help—

1. Keep your body fit and clean. If you cannot keep fit visit your doctor and find out why.
2. Always wash thoroughly before having your meals and when knocking off work.
3. Eat well and regularly. See that your diet is nourishing and balanced. Don't go to work on an empty stomach.
4. Do not change your clothes in the paint shop or have your meals there. Insist on a dressing and mess room, and if necessary, contact the Union on this matter.
5. Bundle your soiled overalls and shirt up carefully. Do not leave them lying around at home, where children may handle them, or where they may soil household articles. See that they are changed and washed regularly, the tubs in which the washing occurs being thoroughly cleansed afterwards.
6. Don't roll cigarettes or fill your pipe with paint soiled hands. Make certain your hands are clean before so doing.
7. After cleaning down or sandpapering, rinse the mouth out well in an endeavour to prevent any dust lodged therein from reaching the stomach.
8. Do not clean your hands with turpentine or any similar material. Use Linseed Oil, raw, for preference. Turps can induce dermatitus whilst oil will not.
9. Hand protective paste, if applied to the hands and arms before commencing work, makes the removal of paint easier, when washing time comes, and assists to prevent dermatitus.

LEAD POISON IN CHILDREN

The history of lead poison in children and painters is indissolubly linked, the use of lead paint on houses supplying the poisoning agents in both cases.

The Queensland medical profession has a splendid record on the lead question generally, the work in this direction constituting one of the finest chapters in the history of Queensland's medical research.

At the beginning of this century, two distinguished medical men, Doctors Lockhart Gibson and Jefferis Turner, discovered that lead poison was the main cause of the high incidence of chronic nephritis in children.

In his book, **"Chronic Nephritis and Lead Poisoning"**, published in the early '30's, Dr. L. J. Jarvis Nye (M.B., Ch.M) tells this story in full.

The contents of the book, and the conclusion arrived at therein prove conclusively that powdered lead paint constituted the main source of infantile nephritis, the high incidence of which had been established by the beginning of this century. The book traces the steps taken by Doctors Gibson and Turner to the conclusion that lead paint was the main source of this disease. The possibility of lead in the water supply, in the form of solder used in the construction of galvanised iron tanks, and in lead arsenate sprays for vegetables, were all examined and disposed of.

Cooking utensils, food from soldered tins, painted toys and many other sources were all investigated to ascertain the source of the lead. Tank water was also blamed, but Doctors Gibson and Turner realised that there was some source of poisoning connected with the home that could not be derived from any of the sources mentioned. Dr. Gibson finally traced the source to verandah railings.

It is now clearly established that the powdered lead paint on verandah railings and walls was the main source of lead responsible for the very high incidence of lead poison in children and chronic nephritis or Bright's Disease in children and adults in their early life.

Dr. Nye himself contributed much towards the proof of the early findings and about ten years later Dr. R. E. Murray of the Commonwealth Health Department published his investigations of the relationship between lead poisoning and chronic nephritis and came to the same conclusion as had all other doctors who had investigated the matter.

The story is a simple but tragic one. The old-style verandahs provided "a safe" place for the children to play in rainy weather and it was common for them to lick the raindrops off the railings.

This was the manner in which the lead dust was absorbed which was responsible for the early death of thousands of Queenslanders before they reached middle age.

Powdered paint from verandah walls and fences and gates also played its part and since those years further investigations by medical officers of the Queensland Health Department and of the Queensland Research Institute have proved that lead-painted furniture and lead-painted toys, toys made of lead and lead on the interior of houses have all contributed towards the high incidence of lead poison in children and the alarmingly high death rate from chronic nephritis in Queensland before middle age over such a long period of years.

NON-INDUSTRIAL LEAD POISONING IN ADULTS

Most cases of infantile lead poison which were non-fatal in infancy brought about the sufferer's death in relatively early adult years. In fact there were many more cases of lead poison from lead paint on houses of a non-industrial character than amongst painters.

In papers published recently Dr. Henderson of the Queensland Institute of Medical Research has produced evidence of the terrible record of lead as a killer of people in Queensland who, in the main, have never been associated with a lead-using industry in their life. Most of these suffered lead poisoning in childhood from lead paint on the outside of their houses, particularly verandahs on the older style of home, where young children in particular spent most of their playtime.

The figures would startle anyone. Dr. Henderson shows that in Queensland, at the peak of the incidence of chronic nephritis, there were 160 deaths per year between the ages of 10 and 60 years in excess of the number who would have died had the death rate from this disease been the same as that in other States. Most of these had never worked in a lead-using industry, but were the victims of lead paint on the Queensland houses. This went on year after year whilst the profits from lead paint accrued to the lead producers and manufacturers at an ever-increasing rate.

The actual number of people who have died in Queensland from lead paint on houses will never be known. It is safe to say that it would be many thousands. Investigations by the Queensland Medical profession show the commencement of the toll as somewhere about the year 1870 and reliable estimates are that it will not have completely disappeared, despite the recent legislation, until about 1990.

This is proof indeed that lead paint has been one of the great killers in Queensland history and evidence of the justice of the Union's stand that the only solution to the problem of lead poisoning of children and painters is the total abolition of lead as a paint pigment in the house painting trade.

PARTIAL PROHIBITION OF LEAD PAINT

Legislation introduced in 1922 by the Queensland Government partially prohibited the use of lead paint and was a direct result of a deputation comprising representatives of the Brisbane Branch of the British Medical Association.

This representation was made as a result of satisfactory evidence of the alarming incidence of infantile lead poisoning from lead paint on houses. The legislation, in brief, provided that no person should use any paint containing more than 5% of soluble lead on any exterior portion of a building which is accessible to children under 14 years of age; nor should any person use or put paint containing any lead on the roof of any building.

Introduced to protect children from lead poisoning, the legislation had a widespread effect. Over a lengthy period, the numbers of children suffering from lead poisoning declined, and at the time of the introduction of the complete prohibition of white lead as a paint pigment on 14/1/56 the death rate from chronic nephritis in the age group 10 to 19 years in Queensland had been reduced to only 50% above that of Australia, whereas at the time of the introduction of the partial prohibition, the death rate in Queensland was six times that of Australia.

Whilst this partial restriction was introduced to protect children, it had a widespread effect on the incidence of lead poison in the painting trade. In its initial stages the legislation met with bitter opposition from the lead producers and manufacturers and most painting contractors, and because of this its adoption was, at one time, postponed for a lengthy period.

The union, however, strongly supported the legislation and as a result of action by the Health Department and a sustained campaign by the union, more and more painting contractors realised that the law must be observed.

Forced to use non-poisonous paints on certain portions of buildings, painting contractors soon gave up the idea of having two mixings for the one building. Before long, the entire exterior of the building was being painted with non-poisonous paint. This meant a marked advance for the painter in that the hazard from lead paint was being constantly reduced in two ways—

1. **The painter was actually spending less time in the application of lead paint.**
2. **The buildings which were being painted externally with non-lead paint presented no hazard in burning off and cleaning down in the next repaint.**

Parallel with the reduction of the incidence of lead poisoning in children, the incidence of lead poisoning in painters must have declined because of the operation of this partial prohibition.

However, the **known** cases actually increased, because of greater knowledge by the medical profession in the diagnoses of lead poison and its various "sequela", together with the greater awareness among painters of the effects of lead paint and a growing culmination of knowledge and experience on these matters by the Union.

INDEPENDENT STATE GOVERNMENT ACTION

About 1924, Mr. Kirwan, then Minister for Works in the Labour Government agreed to a union request to abolish the use of lead paint on all State Government buildings under the control of the Works Department.

Since 1924, all buildings under the control of the Works Department have been painted with non-poisonous paints, the main pigment in use being zinc oxide. In one stroke, the Government introduced a policy in the Works Department which had a bene-

ficial effect on the incidence of lead poisoning amongst painters, particularly those in State Government employ.

This action by the Works Department laid the basis for the development of the new technique of the mixing and application of the non-poisonous zinc oxide paints, and thus created a very powerful base on which the union and the supporters of non-poisonous paints could wage their campaign for the replacement of lead by the non-poisonous zinc oxide paint.

Endeavours to obtain a similar policy in the Railway Department were unsuccessful until about 1954 when the then Minister for Railways, Mr. J. A. Duggan, agreed to a Union request to eliminate lead paint on all wooden buildings owned or controlled by the Railway Department. The failure of the Railway Department to fall into line with general Government policy over such a long period of years undoubtedly caused suffering and death amongst a substantial number of painters in the Railway Department, and children who came in contact with lead paint on railway property.

UNION POLICY OVER THE YEARS

Until the early 1920's the main direction of union policy was to win compensation for its members who were stricken with lead poison. The extent of the knowledge of the medical profession and the union was limited and, in the main, compensation was achieved in straight out cases of lead poison only.

The development of the work by the medical profession to ascertain the cause of the high incidence of lead poisoning in children, together with evidence that chronic nephritis in the older age groups was associated with lead poisoning in childhood all broadened and assisted the union work in this direction.

However, the first real attack on lead paint as such was led by medical men which resulted in the 1922 partial prohibition of lead paint. The next blow was struck by the Union when the Works Department agreed to the request of the union in 1924. A sharp battle was being waged within the union's ranks but those who opposed lead paint were winning greater support and the 1922 and 1924 successes gave this group tremendous impetus. The knowledge and experience of the union developed and deepened and the leadership in the campaign against lead paint was finally taken over by the industrial workers—members of the Painters' Union.

The decline in house painting caused by the depression set the campaign back substantially, but towards the end of the 1930's a new young group developed in the union which adopted the decisive slogan **"The only solution to the problem of lead poison in the painting trade is the complete abolition of lead as a paint pigment."**

Attacks on the partial prohibition of lead during the wartime years met with strong union resistance and even the Commonwealth Government had to recognise the special needs of Queensland in this regard. Those war years strengthened and clarified union policy and the handful of old "traditionalists", who tended to claim that nothing could replace lead as a paint pigment, faced defeat on every field and finally hundreds of members in union meetings unanimously demanded the abolition of lead as a paint pigment.

Changes in paint pigments and vehicles had a favourable impact on the campaign against lead paints. Prior to the war "conventional" paints based mainly on lead, zinc and similar pigments, together with oil and turps were unchallenged. The shortage of linseed oil and some pigments caused by the war, produced the resinated and emulsion paints and the early postwar years saw the rise of the enamelised and other synthetic paints.

Recent years have seen the emergence of the new "chemical" paints (including the plastics) such as Styrinated, P.V.A., the rubber and latex paints and similar materials, all being free from lead. The evolution of the painting trade thus dealt severe blows at lead paint.

With the incidence of lead poisoning among children on the decline, the main issue thus became an industrial one, the property of well-organised industrial workers, fully aware of the danger of the calling in which they worked and determined to abolish that danger by the implementation of the policy which they themselves had declared. In this they had the support of all members of the medical profession who had any understanding of the question at all.

A tremendous blow was struck by the union in 1950 with the publication of the Union Booklet **"The Case Against Lead Paint and For Its Prohibition By Parliamentary Action".** Union members, (stirred by the recent death of one of the oldtime militants, Bob Gardiner, thus culminating a series of lead fatalities at approximately 9 months interval spread over the post-war years) began to talk of specific job action to enforce their demands.

A demand was made on the Health Minister of the day, Mr. Moore, to meet a union deputation to hear the Union's case, and upon receipt of his decision that the union should set down its case in writing, the union requested the Secretary, E. J. Hanson, to present the union case in booklet form. The publication of the sixteen-page booklet, of which some 10,000 copies were produced and distributed Australia wide, was the culmination of nearly fifty years campaign by the union against lead as a paint pigment. This work clearly set out the union's case for the abolition of lead as a paint pigment, answered opposition from all possible sources and demanded that the Government introduce legislation in the 1951 Session.

THE VICTORY IS WON

However, it was not as easy as this. For five years the Minister failed to meet the union deputation. It is known that the union's case, as set out in the 1950 booklet, was submitted to the

closest scrutiny from all quarters, including the lead manufacturers and producers, and officers of the Health Department and the Queensland Institute of Medical Research.

The Minister for Health, Mr. Moore, advised that an investigation was being made into the whole matter including the material set out in the publication. With the assistance of the Trades & Labor Council the matter was raised with the Premier and finally on the 18th October, 1955, a deputation comprised of Union President P. Campbell, Assistant Secretary, J. R. Vaggers and Branch Secretary, E. J. Hanson, created history when, after five years of waiting, they received a guarantee from the Health Minister, Mr. Moore, for the introduction of legislation for the virtual abolition of lead as a paint pigment in the house painting trade. The Union had proved its case, the material in the 1950 Lead Booklet obviously being unanswerable.

THE ROUTING OF THE LEAD ADVOCATES

In the course of the campaign, the union had to combat many arguments by the lead advocates, conscious and unconscious, paid and unpaid.

Nearly forty years ago, certain exceptional members of the medical profession in New South Wales, undoubtedly receiving substantial remuneration from the lead interests, claimed there was no such thing as "lead poisoning" whilst a number of older tradesmen admitted the danger of lead poisoning but said that there was no pigment to replace lead. The greatest menace of all was the lead producers and manufacturers, one of the great monopoly interests of Australia.

These arguments were all combated inexorably by the activity of the medical profession on the one hand, and the determination of the industrial workers on the other and the lead advocates were shattered in the course of the struggle.

SPECIAL ACTION BY PAINTERS AGAINST LEAD

In the course of the campaign, painters began to take action on the job against lead in all its forms. Some of these are worth mentioning.

On the Albion Hotel, Brisbane, three painters employed by a Brisbane contractor walked off the job when they were called upon to use white lead on interior painting. On the Queensland Club, Brisbane, five painters suffering from lead poisoning from burning-off and cleaning operations, refused to continue with the work, indicating that they would sooner be sacked. Painters on the Queensland Glass Works at West End, Brisbane, refused to continue using red lead on the painting of steel fabrication.

In some cases the union influenced property owners to use non-lead metal primers instead of red lead. Amongst these were the Sarina Power Alcohol Co. and the Queensland Glass Works at West End.

Recently, the Brisbane City Council Electricity Department eliminated the use of red lead as a metal paint at the New Farm powerhouse and at their Electricity Department at Mayne.

LONG TERM LEADERSHIP A FACTOR

A factor which assisted materially to achieve the abolition of lead as a paint pigment was the characteristic of the members of the Painters' Union to test potential leaders in the course of industrial and political activity, and, once being satisfied, to elect them to office for lengthy periods.

It can readily be understood that the knowledge required to develop and lead a campaign of the character portrayed in this work could only be acquired by long years of experience. Frequent changes in leadership could not have permitted the leading officers and Executive of the Union to acquire the knowledge and experience and to develop the methods to lead the members to victory.

As an indication of this long term leadership there have been only two secretaries since 1914—the late W. J. Wallace, 1914-1939 and the present holder of the position, E. J. Hanson, who was elected in 1939. Four Presidents have held office since 1934, this being exceptional as presidents are rank and file members. These four are 1934-1939 E. J. Hanson, 1939-1943 H. W. Leary, 1934-1948 F. Gallimore, the present holder of the position, P. Campbell, being elected in 1948.

C. B. Boland has held the position of organiser since 1947 and of Vice-President since 1945. Assistant Secretary J. R. Vaggers has held that position since 1948, whilst Trustees J. Crook and A. G. Hobbs have held their positions for 14 and 10 years respectively.

The long years of association which welded these men into a closely knit leadership, together with the experience and knowledge they gained over the years was undoubtedly an important factor in the success of this campaign.

ALTERED TRADE TECHNIQUE

When first produced, zinc oxide was practically useless as it had no covering power whatever, but the necessary research work by paint chemists changed the technique of grinding and milling zinc and zinc paint has long since established its position on its own merits.

Just as the paint chemist found it necessary to evolve new methods of milling zinc, so did the tradesman painter find it necessary to evolve new technique for mixing and applying it.

Among tradesmen painters, the main source of the new technique of mixing and applying zinc oxide paint was in the Public Works Department. Here two men in particular, ex-painting supervisor L. M. Tarry, and ex-union leader and employee painter

the late James Riddell, after long years of experiment, by trial and error, worked out new methods of mixing and applying zinc oxide paints, the writer himself learning this technique from these masters of their craft.

The new technique was not developed easily or quickly, but took years of experiment, often disheartening. It is fortunate that the men concerned possessed both the theoretical and practical experience, and ability to bring success in their task.

ON THEIR OWN MERITS

The history of the painting trade is rich with the success of the non-poisonous pigments and for many years all buildings painted by the State Government Departments have been painted with zinc oxide paints. Parliament House, the Executive and Treasury buildings, internal and external, painted by the Works Department, many Railway stations and other buildings owned by the Railway Department, and the thousands of new homes built by the Housing Commission in the post-war years, all prove that zinc oxide and other non-poisonous pigments stand the test in every respect.

In the final analysis, the real test is in experiment and practice, and in this test zinc oxide has led the non-poisonous pigments to victory with flying colours in the struggle against lead paint.

Titanium oxide, lithapone and many other pigments for interior use, together with the ferrous compounds such as red oxide, aluminium, zinc chromate and other materials on metal have all contributed to a situation where, even in the rest of Australia, where no restriction or legislation against lead exists, the production and use of lead paints is on the decline and wider and wider sections of the people are coming to realise that lead in all its forms is no longer a superior paint pigment.

TRADITIONS DIE HARD

New ideas seep slowly into the minds of the masses and traditions are extremely hard to overcome. These factors created a fertile ground among painters for the propaganda of the lead interests that nothing could replace lead as a paint pigment.

Many tradesmen originally resisted the introduction of zinc oxide paints, notwithstanding the knowledge of the danger contained in lead. Slowly but surely the zinc advocates, assisted by the restrictions of lead in the Health Act, the successes of zinc oxide in the Public Works Department, and the developments of life itself, won their struggle.

Today no one will deny the high standard which the non-poisonous pigments have achieved, and only those who profit from the sale of lead would be interested in the reintroduction of lead paints.

WHITE LEAD IN OTHER TRADES

Far-reaching as is the prohibition of white lead paints as set out in the Health Act, some loopholes still exist. It is quite legal for white lead to be manufactured, sold and used for purposes other than for paint.

The Health Department advises that it is legal to manufacture, sell and use white lead for the packing of joints in the Plumbing Trade. This indicates one loophole, for unscrupulous or unknowing persons could obtain white lead quite legally and use it in the painting of houses.

The Plumbers' Union contends that the use of white lead for the packing of joints is totally unnecessary as there are a number of other materials which can serve this purpose equally as well. Joint efforts by the Plumbers' and Painters' Union are underway to tighten up the legislation to prohibit the use of white lead in the Plumbing Trade.

THE STRUGGLE AGAINST RED LEAD

Whilst white lead is the most dangerous of the lead salts, lead in all its forms constitutes a menace to human beings. Thus the struggle against the use of lead in paints cannot be considered complete until lead paint of all kinds is prohibited.

After white lead, red lead is the most widely used paint pigment and a campaign is now being waged by the unions under the leadership of the Queensland Trades and Labour Council for the abolition of red lead as a paint pigment. Red Lead is used mainly on metals and is practically unknown in the house painting trade. There is adequate evidence that red lead is not only dangerous to human beings, but no longer constitutes the best paint for use on metals.

In the U.S.A. red lead has virtually disappeared as a metal paint, having been replaced by non-poisonous pigments which have proved their superiority in this sphere.

In the U.S.S.R. red lead and lead chromate paint were prohibited by law in 1957, thus completing the move which commenced in the U.S.S.R. in 1926 and 1929 with the legal prohibition of all other forms of lead paints.

In 1944, as a result of activity by the Unions the use of red lead for paint on new ships in Queensland was eliminated and replaced by iron oxide and aluminium. Since then, these paints, together with zinc chromate and several other materials, have proved in practice that they are more economic, more durable and easier to apply than red lead.

At a Conference called in 1944, by T. A. Foley, Minister for Labor, on lead poisoning in the ship building industry in Queensland, representatives of the unions and employers together with Government departments, were present. The writer was the main spokesman on behalf of the unions and stated that the use of lead in the packing of joints in the shipbuilding industry was purely tradition.

Mr. M. H. Gabriel, Government Medical Laboratory, in his contribution, made the following statement—

"As to the tradition of using lead, I think Mr. Hanson covered the point fairly well when he said there did not seem to be any scientific basis for the use of lead, that it is more or less a tradition in shipbuilding and other painting industries." (Reference—Official transcript of Conference.)

Paint technique among engineers in the Queensland Railways is probably the most backward in Australia. Like Troglodytes, they still stick to the old-fashioned red lead and appear to have little interest in the welfare of the painters in the Railway Department.

So far the Queensland Government has failed to agree to the request of the Committee of Unions for the abolition of red lead as a paint pigment. As with white lead, the tide of history is running against the red lead advocates and the determination of the unions is such that the employers, paint manufacturers and governments cannot long sustain their stand on this matter.

MAIN RED LEAD HAZARDS

The Unions associated with the Trades & Labor Council campaign for the abolition of red lead as a paint pigment, together with the operations which constitute a lead hazard to their members are:—

Operative Painters & Decorators' Union: In the application or removal of red lead paint on metal surfaces mainly in the Queensland Railways.

Boilermakers' Association of Australia: From fumes during welding operations and in the use of the Oxyacetylene torch on red lead painted surfaces.

Federated Ship Painters & Dockers' Union: In the application or removal of red lead paint on metal and other surfaces in the shipbuilding and repairing industry.

Vehicle Builders Employees' Union: In the application and removal of led lead paint on machinery and vehicles in some private enterprises.

Amalgamated Engineering Union: In mixing red lead and white lead by hand and applying this "putty" by hand in the packing of steam joints on locomotives in the Queensland Railways.

Australian Railways Union: In mixing red lead and white lead by hand and applying this "putty" by hand in the packing of steam joints on locomotives and in the application and removal of red lead paint on metal and on bridges both metal and wood in the Queensland Railways.

Queensland Railway Maintenance Union: In the application and removal of red lead paint on metal and on bridges both metal and wood in the Queensland Railways.

Federated Ironworkers' Association: In the application of red lead paint to new structural steel works in steel construction shops.

BEWARE OF THE BRIGHT COLOURS

The Section of the Health Act prohibiting the use of paint containing more than 5% lead chromate is aimed directly at the orange, yellow and green paints containing lead chromate.

These paints became very popular in the post-war years and although it is now believed that these coloured paints are of a non-lead character, painters should contact the union if they suspect that lead forms the basis of these colours.

THE LEAD PRODUCERS AND MANUFACTURERS

Lead production and manufacture in Australia is controlled by very wealthy interests centred around the powerful Broken Hill Proprietary. These interests resisted all endeavours to restrict or abolish the use of lead paints, having concern at all times only for their profits and being completely indifferent to the health and well-being of painters, children, and the public generally. These interests fought bitterly against the amendment to the Health Act in 1922 to protect children and at one stage were responsible for having the amending section held in abeyance for a lengthy period. Basically their attitude has not changed over the years. The only change is a result of the discovery of the new paint pigments and not of the dangers of lead poisoning to painters and children.

The union has always been aware that the main opponents of the abolition of lead paints was the vested interests who profit from the manufacture and sale of lead paint. Life has, however, moved against these interests as with all their power they could not halt the march to victory in this life-saving campaign.

THE FUTURE IN QUEENSLAND

The long struggle which commenced as far back as 1890 when Doctors Jeffries Turner and Lockhart Gibson first commenced to diagnose lead poisoning among children in the Brisbane General Hospital reached its peak on the 14th January, 1956, some two-thirds of a century later with the proclamation of the new legislation.

This tremendous step forward reflects itself immediately in a reduction in the hazard in the painting trade, but there will still be numbers of children and painters who will suffer from lead poisoning caused by lead paint on houses, for a large number of Queensland homes are still painted with lead paint.

These numbers will decline from year to year, and Dr. Henderson of the Queensland Institute of Medical Research estimates that somewhere about 1990 the last of the lead paint will have been removed from Queensland homes and the hazard of lead poisoning from lead paint on houses abolished forever. This estimate is based on a complete observance of the new laws. The task to see that this is the case rests mainly on the shoulders of our members who had most to gain in the victory and in its full observance.

Painters everywhere must be vigilant to ensure that unthinking persons or others with not so honest a motive do not reintroduce lead paint into the trade for the life of painters and children is at stake.

POLICY OF THE FEDERAL COUNCIL

Painters' Unions everywhere have always been conscious of the industrial hazards in their calling and the Federal Council of the Union has been alert to protect the health of its members and to ensure that the industrial disease and hazards in the calling are abolished or reduced to a minimum.

As far back at 1947 the Federal Council declared "That the only solution to the problem of lead poisoning is the total abolition of lead as a paint pigment" and at all Council meetings since has re-affirmed this policy and called upon the Branches to do their utmost to implement it in their respective areas.

Because of factors set out in this publication, the leadership of the campaign against lead in the Union nationally has rested firmly in the hands of the Queensland Branch of the Union. However, the leadership of the Federal Council, and of the other Branches, is conscious of the dangers of lead poison from lead paint and in one way or another the various branches of the Union have been campaigning in support of this policy over a period of years.

Because of its special knowledge and experience, a responsibility rests on the Queensland Branch to ensure that the National campaign is as determined and enduring as was the campaign in Queensland.

This is the decisive prerequisite to extend the success in the campaign for the prohibition of lead in the house painting trade into the national sphere by prohibiting lead paint throughout Australia.

Reports of activities by Branches of our Union throughout Australia together with recent statements by the New South Wales' Director General of Health and other authorities, and the growing consciousness of other unions whose members are associated with lead paint in any form, indicates that the stage is being set to prohibit the use of lead paint of any kind, not only in Queensland, but throughout the continent of Australia.

With the Union determined and resolute, fully conscious of its case, aware of both its allies and opponents, and the obstacles which it has to overcome, this objective can be achieved in the foreseeable future.