

The cover features a central illustration of a green branch with several small, five-petaled flowers and buds. This branch is set against a background of a light pink, vertically-lined pattern. The entire scene is framed by a decorative border of dark green holly leaves and clusters of small red berries. The title 'Mazda House News' is written in a large, elegant, black serif font, with 'Mazda' on the top line, 'House' on the second line, and 'News' on the third line. Two small black dots are positioned on the left side of the page, one above and one below the word 'Mazda'.

# Mazda House News

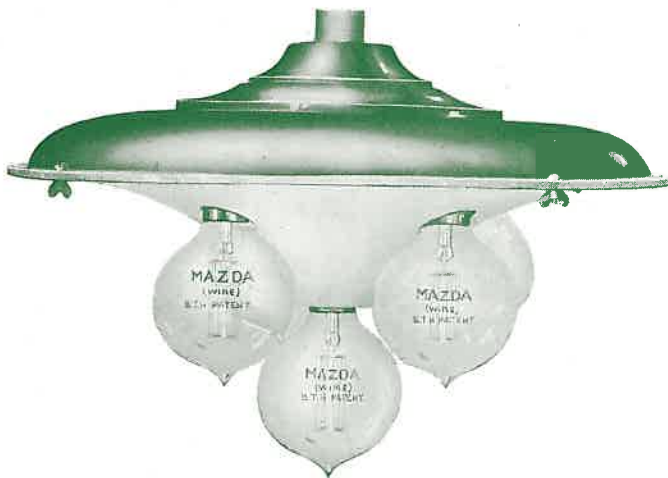
Published to give information on Mazda House  
matters and to stimulate Electric Lighting business

No. 3

December

1913

# B.T.H. WEATHERPROOF LANTERNS.

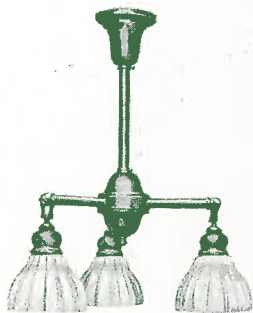


Above is shown Weatherproof Lantern Cat. No. F8142. Its capacity is 5 Mazda Lamps of 100 watts each, and its price is 27/-.

There are angle types for window lighting—types with glass covers—types for illumination of large areas—all well made, well finished and free from complications. Let us have your enquiries.

OUR Catalogue gives particulars and prices of a most comprehensive line of Weatherproof Lanterns. They range in price from 7/6 to 55/- each, taking from 1 to 8 Mazda Lamps with a total capacity of from 30 to 600 watts. There are angle types for window lighting—types with glass

## B.T.H. **Mazdaliers** REGD TRADE MARK

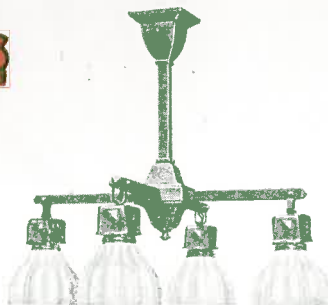


### ROUND TUBE TYPE.

F 9050 one light	...	8/6
F 9051 two light	...	20/-
F 9052 three light	...	27/6
F 9053 four light	...	35/-
F 9054 five light	...	45/-

The Mazdalier is an inexpensive type of electric light fitting, scientifically designed to give the most effective lighting results.

Mazdaliers are supplied packed in neat pasteboard cartons, which prevent the fittings from deteriorating. Each fitting is sold completely wired and fitted with lamp holders and galleries, so that it can be quickly and easily installed.



### SQUARE TUBE TYPE.

F 9060 one light	...	12/6
F 9061 two light	...	42/6
F 9062 four light	...	65/-

The Mazdalier is a complete lighting unit, including all necessary parts and accessories. It is convenient to sell and convenient to buy for that reason—there is no question of finding holders and galleries to fit, nor is there the trouble and delay of wiring. All these matters are attended to before the Mazdaliers leave the factory.

The Mazdalier, in conjunction with Mazda lamps and properly designed reflectors, such as Veluria, provides a convenient, well-proportioned, dignified and highly effective light unit, capable of fulfilling every requirement of scientific and satisfactory illumination.

Send to Mazda House or nearest Branch for Price List Folder F2334.



"Far and away the best diary  
published in connection  
with the Industry"

# THE ELECTRICAL ENGINEER'S DIARY

PRICE **3/6**  
Post Free.

## SPECIAL SECTIONS:—

### 1. The Generation of Electricity

Containing information of great use to all engaged in Central Station Work on the following subjects:

Coal Specification  
Boiler Furnace Draught  
Steam Turbines  
Automatic Regulators  
Motor Converters  
Parallel Running of Alternators,  
Automatic Reversible Boosters and  
Secondary Batteries

Uni-Flow Steam Engines  
Locomobile Steam Engines  
Gas Plants  
Phase Advancers  
Balancing Machines  
Plant Operating in Gassy atmosphere  
Dynamos and Boosters for Battery  
Charging

Diesel Oil Engines  
Semi-Diesel Oil Engines  
Air Filters  
Sub-Station Plant  
Boosters  
Earthed Neutral on A.C. Systems  
Diseases of Storage Batteries  
&c. &c.

### 2. The Application of Electricity for Lighting, Cooking and Heating

Contains information that every Contractor should possess.

### 3. The Application of Electricity for Power Purposes

In this section particulars are given of the various forms of mechanical driving, together with a summary of the conditions which govern the application of electricity in over forty different industries. The horse-power of motors required to drive the various machines used in the different trades is likewise given.

### 4. Official Rules and Regulations

The section contains the following Official Rules and Regulations: Home Office Electricity Regulations for Factories and Workshops; Home Office Electricity Regulations for Mines; Standardization Rules for Electrical Machinery; Wiring Rules of the I.E.E.; Model Wiring Specification (E.C.A.).

### 5. Complete List of all the Streets in London in which Electricity Mains are laid

Giving voltages, charges for current, and the Supply Authority's regulations. This unique list also shows those streets in which a supply of current is available from more than one source.

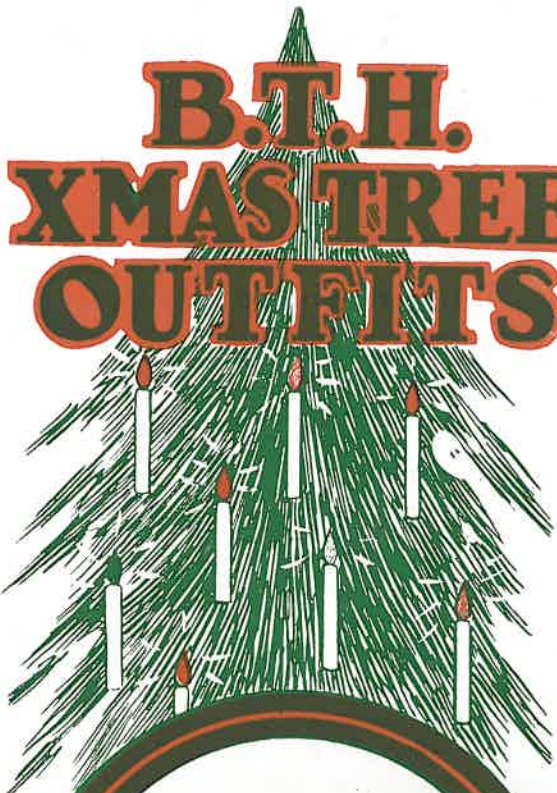
### 6. List of Electricity Supply Authorities throughout the United Kingdom.

With the voltages of supply and the charge for current (Light and Power) in every case. This list is the most comprehensive list published. It comprises 531 cities and towns.

*Other valuable sections are also included, and there is a "3 day-to-the-page" diary on good paper interleaved with good blotting. The size of the diary is 11in. by 8½in. Send your order at once.*

Obtainable from the Publishers—  
**S. DAVIS & CO.**  
St. Swithin's Lane,  
London : : E.C.

# B.T.H. XMAS TREE OUTFITS



## Order at Once

Here's something that will sell like hot cakes—a complete tree lighting outfit consisting of 10 glass Candles, 3" long 1" diam., with small carbon filament lamps of various colours, arranged in series for low or high voltage. The Candles are spaced 20" apart, and the total length of the Flex is 24 ft. complete with china connectors and two spare lamps. Packed in attractive box at 12/- subject. The lamps are 20v. 10 in series for high voltage circuit and 10v. 10 in series for low voltage circuit. Be sure to state voltage.



## It's so simple

You insert the neck of reflector



—slide the spring—



—and the reflector is securely held.



Its the B.T.H. Spring Clip Gallery we're talking about.



Quality Good

Prices Right

## Bell Material

Bells, Buzzers, Bell Pulls, Alarm Pushes, Relays, Rosettes, Switches, Contacts, Indicators, Wire—everything appertaining to bells can be obtained from B.T.H.





ALBA SPHERE

# Alba

—the most beautiful  
illuminating glass-  
ware in the world.

ALBA is the name given to a beautiful, new glassware for use with Mazda electric lamps. Made of a translucent glass resembling pure white marble or alabaster, Alba bowls, spheres, etc., have an exquisite charm.

Alba glass, by reason of its special composition, gives perfect light diffusion with a minimum of absorption. The rays of light are split up and diffused, so that the whole exterior surface of the bowl or sphere is evenly illuminated.

This diffusion of the light, by reducing the apparent brilliance of the lamp, ensures a complete absence of the harmful and irritating glare so common with ordinary shades. Alba glassware is also highly efficient, because it transmits and reflects a very high percentage of the light from the lamps.

For all interiors requiring decorative lighting effects Alba glassware is eminently suited, both as regards appearance and illumination results.

*Send for our handsome Folder No. S2336, which gives further particulars and prices of this high-class glassware.*



ALBA BOWL



ALBA BOWL



ALBA BOWL

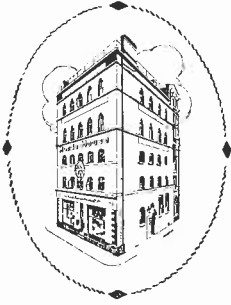


ALBA BOWL

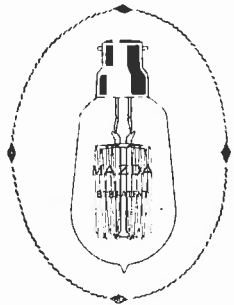
To wish you  
a Happy Xmas  
compounded of all those  
joys and pleasures which  
kindly tradition has sanctified  
at this season

L





# MAZDA HOUSE NEWS



*Published by the British Thomson-Houston Co., Ltd., 77 Upper Thames Street, E.C.  
All communications should be addressed to the Editor, "Mazda House News."*

No. 3.

DECEMBER

1913.

## Christmas.

**A**T this season, when everyone tries to be happy and gay in spite of cold and gloomy weather, there are surely no presents more suitable, and more certain of an appreciative reception, than those giving heat or light, or both. Make a special Christmas window display of some of the electrical appliances mentioned hereafter and see if you don't get a good share of very profitable business.

Christmas is full of opportunities for the man who sells electrical appliances. More money changes hands at this time than at any other period, and most of this money is spent on things which carry a good profit for the retailer. People do not quibble about price when they are buying presents—and who is not buying presents at Christmas?

In this number of "Mazda House News" we have tried to indicate a few ways in which you can make Christmas a blessing, not only in a sentimental and spiritual sense, but also in a business sense.



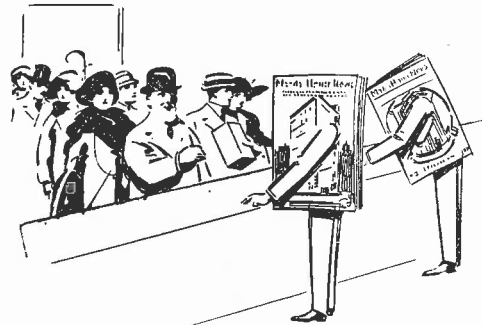
## Is "Mazda House News" Helping You?

**W**E want this publication to be a real help to you in your business—wherever and whatever it may be. It is not enough for you to be interested in the paper, although of course we desire and appreciate your interest. What we chiefly desire is that "Mazda House News" shall assist you in selling, that it shall increase

your business and profits. If it is not doing this it is failing in its most important function.

We are doing our best at this end; but you can no doubt suggest ways and means whereby this paper can be made more useful to you. Any suggestions or contributions you make with this end in view will receive our careful consideration.

Here is one way in which you can gain direct benefit from "Mazda House News." Make a point of showing particular articles or illustrations to those from whom you hope to get business. For example, you may be after an

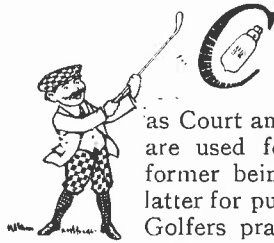


Helping.

order for installing electric light in a church, or for modernising an old installation. Go to the man who has the order in his gift and get him interested in the methods described on page 5 of the November number. Offer to show him photographs (which we will lend you) of other Mazda installations.

Similarly with other classes of lighting work—cinemas, factories, shops, and so forth—you will find an article in one number or another of "Mazda House News" which will afford you an excellent introduction, provide you with talking points, and in many cases get you the business.

## The Lighting of Golf Courses.



CONTRACTORS and central stations can make money out of golf. What are known as Court and Clock Golf Courses are used for practice play—the former being for putting, and the latter for putting and approaching. Golfers practise on these courses to improve their short play on the regular links.

It is obviously desirable that the golfer who is conscientiously striving to improve his play should be able to practise at all reasonable times. During the greater part of the year his only opportunity for daylight play is at weekends, when he naturally prefers to play serious games on the ordinary links.

This point occurred to the Committee of the Fort Mitchell County Club, and they decided to attempt the artificial illumination of the course, so that members could practise in the evening all the year round.



Fig. 1.  
Golf Practice Course lighted with Mazda lamps and Mazdalux reflectors.

Plans were accordingly drawn up and the work executed. When the lights were turned on the players took up the game as though they had always played by artificial light. As to the effect of the lighting on their game, the general opinion was that, if there was any difference at all, it was easier to play under the artificial light than by daylight.

The lighting was designed to give uniform illumination over the course, regardless of the position of the holes, and after completion it was found necessary to change only one hole which was a trifle too near one of the poles. The installation consists of three poles made of  $2\frac{1}{2}$ " gas pipe (see Fig. 2). The cross arms are of  $1\frac{1}{4}$ " pipe with a spread of 18', the lamps

hanging 14' above the ground. Six 400 watt bowl frosted Mazda lamps (two on each pole) are used, and they are equipped with Mazdalux type metal reflectors giving an extra extensive distribution.

The dimensions of the court and the distance between the tees and holes are given in Fig. 3. The intensity at the various holes is approximately three foot candles

It will be noticed that the greatest distance between tee and hole is 100' at No. 7. The ball has to be driven over a bunker and probably reaches a height of from 35' to 50'. It is visible to the eye during its entire flight. There have been times in playing this hole when the ball has been driven 100' off the course without getting out of sight.

The expense of such an installation as that described is not high, and it can be very easily and quickly made. The total current consumption at the Fort Mitchell Club is  $2\frac{1}{2}$  units per hour; at 4 d. per unit the cost would be 10d. an hour.

Here is a new opening for enterprising contractors. Most golf clubs have practice courses, or have certain holes which are used for practice purposes. Call on the secretary of the golf club nearest to you, show him this article, and give him an

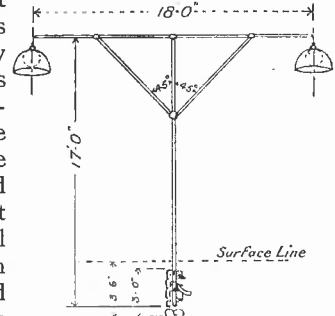


Fig. 2.  
Wrought Iron Post equipped with two 400 watt Mazda lamps with extensive Mazdalux reflectors.

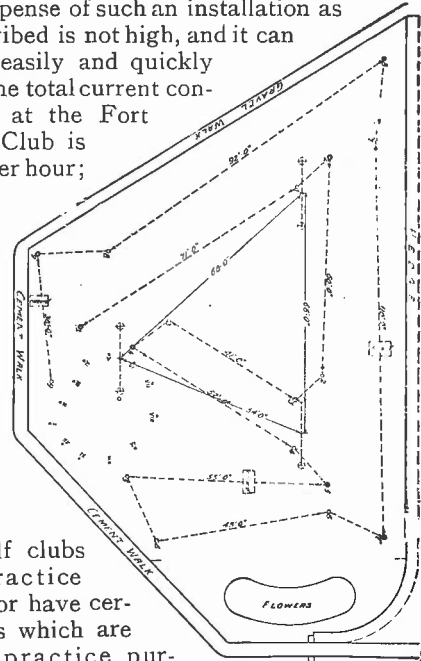


Fig. 3.  
Sketch plan of Golf Practice Course showing dimensions and distances between tees and holes.



approximate estimate of the cost of installation. If you can get in touch with any club the services of our illuminating engineers are at your disposal to lay out the installation and prepare the specification.

### Business Building for Burglars.

#### EFFICIENCY IN CRIME.

**W**HAT does a burglar always carry besides a revolver? Why, a flash-light, of course. Uses it in his business every day, or rather, every night, doesn't he? It behoves the hard-working, ambitious young burglar to have the very best flash-light obtainable if he is to make an honoured name for himself in this famous profession.

One of our B.T.H. flash-lights will increase his efficiency fifty per cent. Loot which formerly was overlooked will reveal itself as frankly as "September Morn."

Recently one of our foremost Knights of the Jimmy entered the apartment of a famous actress and appropriated all the available jewellery and bric-a-brac. Just as he was departing the lady awoke and, as she opened her mouth to scream, the bright light from his B.T.H. flash-lamp revealed a large diamond set in one of her pearly teeth. The tooth was deftly removed and eventually proved quite valuable. With a cheap flash-light this find would not have been made, and the oversight would have cast a blot upon the hitherto spotless escutcheon of the burglar. To let that diamond escape would have been very "coarse work" indeed, yet it never would have been discovered without the B.T.H. flash-lamp.



Another burglar, with a cheap, dim flash-light, on entering a bank, unfortunately failed to see the night watchman, with a 12-gauge shotgun in hand, hiding behind the door. As the unsuspecting burglar passed the door he was treacherously shot by the murderous ruffian crouching behind it, and passed

away before his loved ones could be summoned.

At best the house-breaking profession is fraught with danger on every hand. Householders are most unreasonable, and strike or shoot without awaiting explanations. If a burglar is to grow old and respected in the business he must have and use all the latest devices which modern science has rendered available. None is more important than a perfect flash-lamp.

If the contractor who stocks our flash-lamps will remember these incidents and relate them to the burglars of his acquaintance his business in this material should grow and flourish exceedingly.



ALBA LIGHTING IN CITY BOARD ROOM.

Have you ever seen a better example of Semi-Indirect Lighting? We have a number of Alba fittings in our Showroom at Mazda House. Come and have a look at them.



Why does the shopkeeper stock Drawn Wire Mazda?

The public insist so he natch'rally hazda. [Sorry, but this was worked off on *me*.—EDITOR.]

### What "Mazda" Means.

**A**MONGST the many millions of people who use or know about the "Mazda" lamp there must be some who have wondered what the word signifies and whence it is derived. The word comes from the Persian mythology connected with the religion of Zoroaster—the worship of the Sun, the God of Light.

Briefly, the story is this: The ancient Magii

of the East held that human affairs were ruled by two deities or principles. One is Ahuru Mazda, the author of all good, eternally absorbed in light; the other, Angro Mainyush, the origin of all evil, dwelling in perpetual darkness.

These two powers are engaged in a long and terrible conflict, and the prize of the victor is to be the collective soul of man.

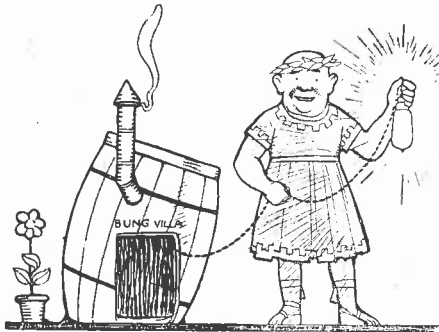
"Mazda" created man free, so that if he allows himself to fall under the sway of the swart and malevolent "Angro" he may justly be punished.

According to this mythology, "Mazda" must triumph ultimately, and there will then be one undivided kingdom of *light* in Heaven and Earth.

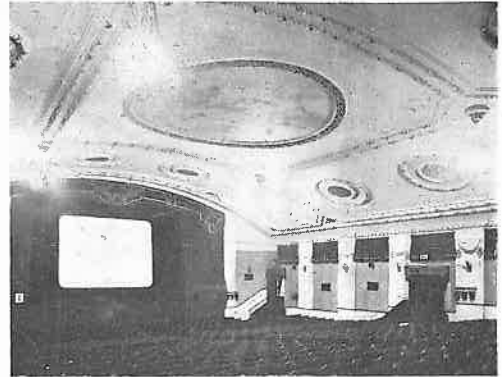
The Persian Zoroastrians gave the word "Mazda" the meaning of "Master" or "Supreme Light"—in this way anticipating by many centuries the present significance of the term. The word "Mazda," as applied to a certain make of efficient and durable tungsten lamps, is to-day sufficiently well-known to qualify as a worthy companion of such household names as "Pears" and "Sun-light." The fact that there are at this moment upwards of 30,000,000 Mazda lamps with drawn wire filaments in use, to say nothing of the older types, is an indication of the ultimate truth of the prophecy: "One undivided kingdom of light."



### Tracking Truth.

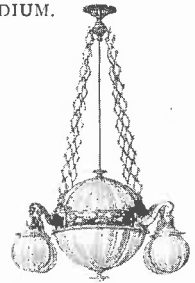


Diogenes is reported to have searched unsuccessfully for a single honest man. He might have found one if he had used a Mazda lamp instead of a lantern—at any rate he would have had a pleasanter journey.



THE BALHAM PALLADIUM.

This is another specimen of Alba lighting, but it is not semi-indirect. Heavy brass fittings, equipped with a central 16" Alba sphere and four 6" Alba balls, are used. One of these fittings is shown in the illustration along-side. The Balham installation represents a divergence from our usual cinema practice, but in this case Alba lighting was employed because of the painted ceiling. The illumination is exceedingly beautiful.



### An "X-Ray" Folder.

We have in the press an attractive 10-page folder describing and illustrating X-Ray reflectors for shop window lighting and other purposes.



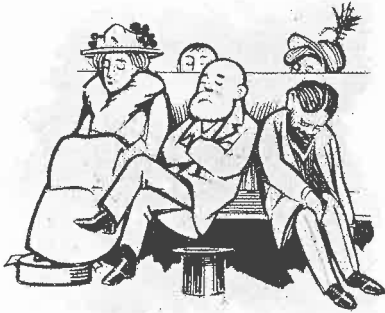
Cover of "X-Ray" Folder.

This folder is intended primarily for distribution to shopkeepers. There is a space for overprinting on the front cover. If you will send particulars we will have a quantity overprinted and forwarded to you.

You will find the X-Ray folder an excellent lever for obtaining business from the traders in your neighbourhood, because it relates to something which has a perennial interest for them, to a problem which they have never completely solved. The X-Ray folder will show them how to light their windows more brilliantly, effectively, and *cheaply*—and if *you* send the folders it is *you* who will gain their gratitude and future business.

### That Dim Religious Light.

It is said that sleepiness in church is due more frequently to bad lighting than to dull



The Place of Rest.

sermons. This theory was promulgated by illuminating engineers, and is supported most enthusiastically by the clergy.



### The Lighting of a Printing Works.

*This article, describing the lighting of the printing works of the Boots Pure Drug Co., Ltd., at Nottingham, is an abstract of an article under the same title which appeared in "The British Printer." There are printers in your district. They need good lighting just as much as Boots do.*

**T**HE economic value of good illumination is perhaps more apparent in the printing industry than in any other.

Although, of course, modern printing is very largely a succession of ingenious and highly-developed mechanical processes, it is neverthe-



Composing Room (Boots, Nottingham) lighted by Mazda lamps in Mazdalux reflectors.

less directly dependent for its rapid and accurate performance upon the visual efficiency of the

operatives, and this factor in its turn is determined absolutely by the degree and quality of the artificial illumination under which the work is carried on.

Especially is this so in the case of the composing-room. Anyone who has had anything to do with typesetting will appreciate the value of good illumination as an aid to composition. If the type cases are inadequately lighted, or if the lighting is of such a nature as to cast heavy shadows or cause uncomfortable glare, the compositor is badly handicapped, and works less accurately, and at a lower speed, than he would under better and more scientifically-arranged illumination. It is obvious, too, that inefficiency in the composing-rooms will react most unfavourably on the collective efficiency of the whole works. In these days of competition and cut prices the printer who handicaps his workers by providing inadequate or

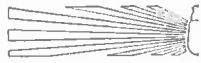


General Illumination of Press-Room with high candle-power Mazdalux units suspended close to the ceiling.

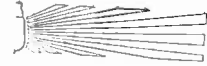
badly-distributed illumination is deliberately reducing his already small margin of profit.

The British Thomson-Houston Co., Ltd., manufacturing and illuminating engineers, of Rugby, London, etc., have made a special study of industrial illumination, and have developed electric lamps and reflectors of various kinds suitable for all conceivable lighting conditions. They have recently supplied the lighting equipment for the printing works of the Boots Pure Drug Co., Ltd., at Nottingham, and the results are in every way satisfactory. In designing the installation four essential points were kept in view, viz.:—(1) That the illumination should be adequate; (2) that it should be uniformly distributed; (3) that there should be no glare or shadows; (4) that it should be economical in current consumption.





# MAZDA HOUSE NEWS



All these requirements are completely fulfilled in the lighting system installed.

The lighting in the composing-room is partly



General Illumination with Mazda lamps and Mazdalux reflectors in Bindery of Boot's Printing Works.

local and partly general. The cases are lighted by Mazda lamps, equipped with Mazdalux reflectors, suspended a few feet above the working plane.

A type-case is not an easy thing to light, but in the composing department in question this has been carried out quite successfully. The illumination on the surface of the cases is of a high intensity, but there are no shadows owing to the thorough diffusion and even distribution of the light. The depth and opacity of the Mazdalux reflectors remove all possibility of glare, and the compositors are thus enabled to work for extended periods without fatigue or eye-strain.

In the bindery general illumination only is employed. This is provided by a number of Mazdalux units fixed close to, and spaced evenly over, the ceiling. The result is an entirely uniform and shadowless illumination of fairly high intensity, admirably suited to the working conditions of the room.

The illumination of the press-room is also general, and is provided by Mazdalux units suspended at a considerable height from the ground, as indicated in the view of the machine department on page 11.

The lighting at Messrs. Boot's works is excellent in every way, and reflects great credit on the B.T.H. Co.'s illuminating engineers who designed and supplied the necessary appliances, and on Mr. Phillips, the chief engineer of Boots' Pure Drug Co., Ltd., who was responsible for the arrangement of the installation.

## Why the Typewriter Lisped.

In connection with the note under this heading which appeared in the November issue we have received the following communication from a (as yet) constant reader:

"Your 'Mazda House News' to hand.

I note that your lisping typewriter recovered itself in 'voltths.'"

We looked, and it was even so. Six proof readers have been trying to keep S's out of the letter reproduced there, but the sibilating tendency of the English language was too much for them, as the single, superfluous "s" in "voltths" bears silent witness.

A new Purity Crusade has been instituted—against the use of naked lamps in exposed positions.



Volts for Women—Shocking!

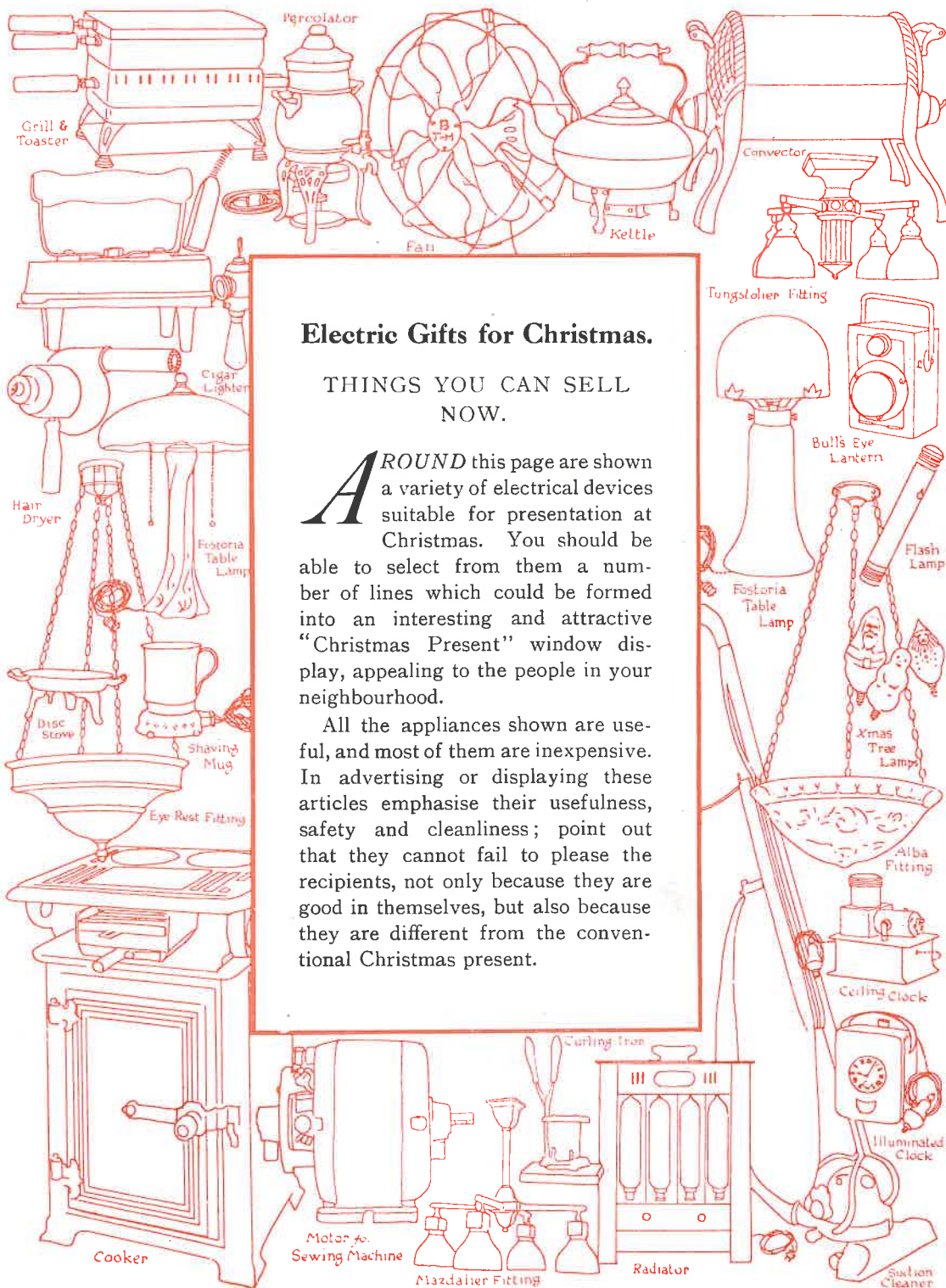
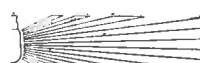
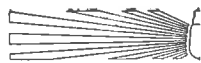
## Don't Burn Your Fingers.

An ordinary wooden match—at twopence a dozen boxes, each box containing 60 matches—is worth  $\frac{1}{60}$  of a penny.

An 8 c.p. Mazda Drawn Wire Lamp, with electricity at 4d. per unit, will give a bright, cheering light for over four minutes at a cost of one three-hundred and sixtieth part of a penny—the price of a wooden match!

Use Mazda lamps and save matches, money and temper.





**Electric Gifts for Christmas.**  
THINGS YOU CAN SELL NOW.

**A**ROUND this page are shown a variety of electrical devices suitable for presentation at Christmas. You should be able to select from them a number of lines which could be formed into an interesting and attractive "Christmas Present" window display, appealing to the people in your neighbourhood.

All the appliances shown are useful, and most of them are inexpensive. In advertising or displaying these articles emphasise their usefulness, safety and cleanliness; point out that they cannot fail to please the recipients, not only because they are good in themselves, but also because they are different from the conventional Christmas present.

# THE RANGE OF MAZDA DRAWN

This double-page "s as it shows the rela Lamps. The illust mately one-fourth act dentally this display p



6 watts  
20 to 57  
volts



10 watts  
20 to 57  
100 to 130  
volts



15 watts  
100 to 130  
200 to 260  
volts



20 watts  
20 to 260  
volts



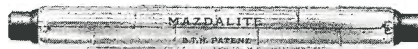
30 watts  
20 to 260  
volts



200 watts  
100 to 130 volts  
200 to 260 volts



3000watts  
100 to 130 volts  
200 to 260 volts



MAZDALITE STRIP LAMPS  
10 and 20 watts      33 to 125 volts



100 watts  
100 to 130 volts  
200 to 260 volts

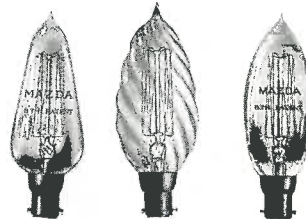
AUTOMOBILE LAMPS



HEADLIGHT, REARLIGHT  
LIMOUSINE & TUBULAR

For sizes, etc., see Folder  
No. L 2324

CANDLE LAMPS



FLAME      TWISTED  
FLAME      OLIVE

10, 15 and 20 watts  
25 to 260 volts

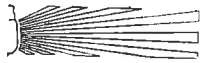
THER  
**Ma**  
DRAWN

FOR I  
LIGHTING



1000  
100 to 130 volts and





# WIRE LAMPS NOW AVAILABLE

bread" is interesting  
 ive sizes of Mazda  
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 al dimensions. Inci-  
 ves conclusively that

ES A  
**Mazda**

WIRE LAMP

VERY  
 CONDITION



40 watts  
 35 to 260  
 volts



60 watts  
 35 to 260  
 volts



80 watts  
 100 to 130  
 200 to 260  
 volts



100 watts  
 100 to 130  
 200 to 260  
 volts



400 watts  
 100 to 130 volts  
 200 to 260 volts



600 watts  
 100 to 130 volts  
 200 to 260 volts



TUBULAR  
 LAMPS  
 10, 15, 20 w.  
 25 to 125 v.



FOCUSING LAMPS  
 40 and 60 w., 70 to 89 v.  
 40, 60, 100 w., 100 to 130 v.



STEAMSHIP  
 LAMPS  
 20 and 30 watts  
 60 to 80 volts  
 100 to 130 volts



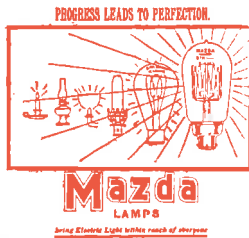
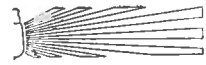
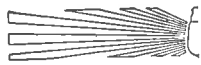
SIGN LAMPS  
 6 watts  
 20 to 25  
 50 to 55  
 volts



TRAIN  
 LIGHTING  
 LAMPS  
 10, 15 & 20 watts  
 16 & 24 volts



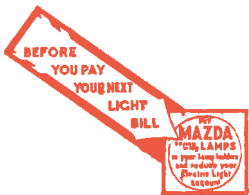
atts  
 200 to 260 volts



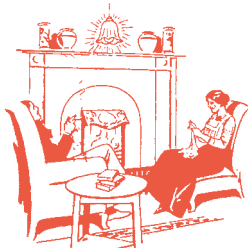
MHN-36. 2 1/2" wide.



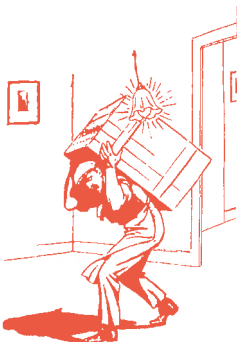
MHN-37. 4 1/2" wide.



MHN-38. 2 1/2" or 4 1/2" wide.



MHN-39. 2" wide.



MHN-40. 2" wide.



MHN-43. Any size.



MHN-44. 2 1/2" wide.

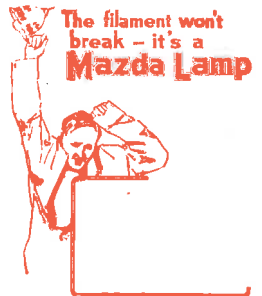


MHN-45. Any size.

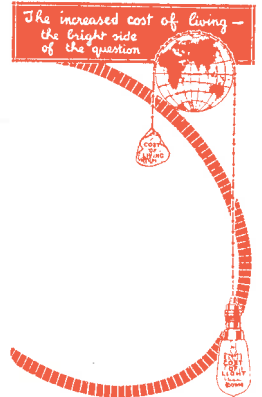
Do this in one of your rooms



MHN-46. 2 1/2" or 4 1/2" wide.



MHN-47. 2 1/2" or 4 1/2" wide.



MHN-48. 2 1/2", 4 1/2" or 6 3/4" wide.

## More Free "Ad" Blocks.

OUR offer, in the November No. of "Mazda House News," to supply, without charge, blocks illustrating any of our material, has caused a large amount of attention. Many of our readers have availed themselves of the offer. Have you?

We illustrate some more of our 'ad' blocks on this page. These will be found useful not only in local papers, but also for illustrating handbills, printing on memo. forms, postcards, etc. Anyhow, it doesn't matter *how* you use them to advertise your business, as long as you *do* use them.

Let us know which blocks you want; give the letters and number shown under each miniature reproduction; be sure to give the width. The only stipulation is that you refer to our material by name when you use our blocks.



MHN-41. 2" wide.



MHN-42. 2" wide.



MHN-49. Any size.

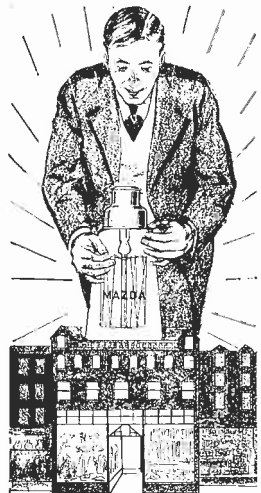
**More Light at Christmas.**



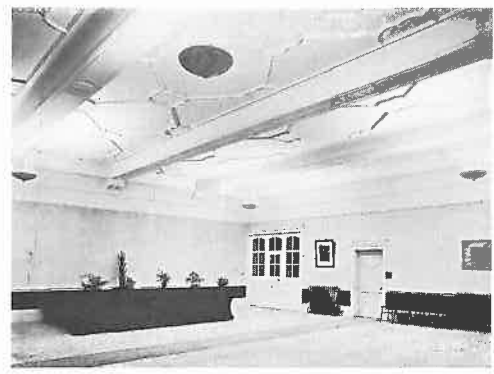
**C**HRISTMAS is upon us, and nearly every shop will want more light at Christmas for bazaars, special window displays and other purposes. More light means more lamps, more reflectors, possibly more wiring. What are you doing about it?

All the tradesmen who run Christmas bazaars or special displays of any sort should be energetically canvassed, with a view to selling them additional Mazda lamps and Veluria or X-Ray reflectors. B.T.H. illumination strip, colour caps for lamps, Christmas tree outfits—all these things are good sellers at this time—especially to drapers.

It ought not to take you long to prove to your shopkeeper friends that additional lighting at Christmas means additional business. Let us help you to brighten the windows and interiors of the most important shops in your neighbourhood this Christmas. We have everything you need for the purpose.



Shops want more Lamps at Christmas.



**"EYE-REST" AND THE "LIGHT FANTASTIC."**  
 What better light than "Eye-Rest" can be employed for Ball-room illumination? There's a deal of dancing goes on at Christmas time. Can't you arrange that all "Tango" exercises in your neighbourhood are carried on by "Eye-Rest" lighting?



**It Does Not Cost Anything.**

**T**HE services of our Illuminating Engineers are at your disposal, *free of all charge or obligation.* We only ask you to pay for material actually supplied.

Is that plain? This is emphasised here, because there seems to be some misunderstanding about the matter, and we have recently been questioned as to what it will cost to have the advice of our engineer. Whenever we have written about or advertised our Illuminating Engineers' Department we have always stated that their services are gratuitous.

Put any kind of lighting problem before us: our Illuminating Engineers will work it out, and prepare drawings, specifications, estimates, etc., and it will cost you nothing.



**A "Mazdirection."**

O yes, it's quite easy to find Mazda House. It's only two minutes' walk from Mazda (beg pardon, Mansion) House Station.



**VELURIA IN LONDON INSURANCE OFFICE.**  
 There are, of course, Mazda lamps inside the Veluria reflectors. The Veluria-Mazda combination is an *insurance* against bad lighting.

It's a funny thought, but have you realised that what is indirect lighting for us is direct lighting for flies? Serve 'em right!



## Mazda Lamps for Motor Car Lighting.

**D**ID you go to the Motor Show at the Olympia? If you did you must have noticed that nearly all the latest models are fitted with electric generating sets. There is now a very considerable demand for automobile electric lamps. Are you doing anything to bring motorists to your shop when they want renewals?

The business in motor car lamps is, of course, not so large as in standard lamps, but it is certainly worth having. And there is this point to consider: the competition is not so

keen as with the standard types.

Why don't you make a bid for this motor car business? If you sell a man lamps for his car, and they give satisfactory service, it will not be long before you sell him lamps for his home or business premises.

The custom of people wealthy enough to



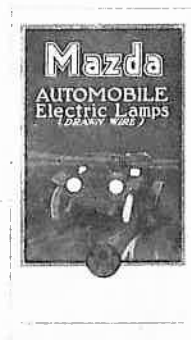
Get a copy of this: it's the Mazda Automobile Showcard. The original is beautifully coloured.

own motor cars should have considerable value, from the advertising as well as from the sales point of view. Anyway, it doesn't do you any harm to have motor cars standing outside your premises.

We have developed a complete range of Mazda Automobile lamps with drawn wire tungsten filaments—for headlights, side and rearlights, dashboard lights and limousine lights. These lamps possess all the good qualities of the regular types of Mazda lamps, but the filaments are specially formed to suit the peculiar conditions of this class of service. The Mazda Headlight lamp, for example, has a helical coil

filament, giving practically a point source of light, so as to produce, in conjunction with a parabolic reflector, an approximately parallel beam of light.

The dimensions, form of filament, etc., of Mazda Automobile lamps have been designed so as to ensure that the complete unit shall give the most effective and satisfactory results.



Cover of Mazda Automobile folder (L2324).

The drawn wire filament of the Mazda Automobile lamp makes it proof against all the shocks and jars incident to motor car service.

Hang one of our Automobile showcards in a prominent position in your window; requisition some Mazda Automobile folders (No. L2324) and distribute them to motorists in your district; and adopt as your

motto "Mazda Lamps for Motor Cars." By doing these three things you will ensure for yourself a footing in a profitable and rapidly developing business.



Mazda lamps for the long nights—don't rely on the Aurora Borealis



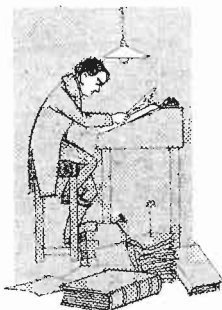
## Balancing Up.



**A** FEW weeks from now you will be taking stock of the past year's business. Perhaps the end of your financial year does not occur on December 31st; but whether it does or not you

can hardly avoid making some sort of mental

balance sheet on this date. You will want to know how your business has fared during 1913, whether it has progressed, stayed still, or retrogressed.



Mr. "Out-of-Date" finds a debit balance.

The year has something under a month to run, but the time that remains is sufficient for a spurt that may make all the difference in your total business for 1913. Are you going to make this spurt? Are you going to concentrate all your efforts on doing as much business between now and Christmas as during the previous three months?

It will make some difference in your end-of-the-year balance sheet if you succeed.

Elsewhere in this number, and also in the November number, specific ways in which you can get your share of Christmas trade are described. In addition to these schemes very important factors in this connection are the atmosphere of your shop and your own personal attitude towards Christmas.

Be Christmassy yourself, make your shop Christmassy, even if it has to be done by the aid of such devices as cotton wool, imitation holly and paper streamers. As an electrical man it should be easy for you to devise something new and striking in the way of shop decoration. Anyway, get that Christmas atmosphere, lay in that Christmas stock, and Christmas trade will surely come to you.

You have an aim—as much business between now and Christmas as during the preceding three months. Can you achieve it? You can try at all events. The least successful attempt will add something to the credit side of your balance sheet.

### Mazdas in Mausoleums.

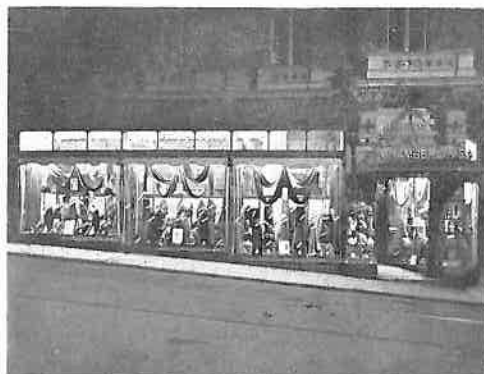
We have received an enquiry for "one gross of lamps for 100 *caulds*." The contractor who is *undertaking* the job has evidently miscalculated, or perhaps he requires the odd 44 for illuminating tombstones.



A bumper year, thanks to Mazda and a Christmas spurt.

### Brilliant Windows.

**T**HE windows of Chamberlin's, Ltd., Norwich, are illuminated by Mazda lamps and B.T.H. window-lighting reflectors. The units are fixed



An Example of B.T.H. Shop Window Lighting.

out of sight along the top front edge of the window.

Read what Messrs. Chamberlin's say:—

Dear Sir,

We have now had a good opportunity of testing your scheme of invisible Electric Lighting installed in our windows, and are glad to inform you that the result is altogether beyond our expectations. In our opinion, the value of our windows, from a selling point-of-view, has considerably increased: the light is so evenly distributed that garments at the back of the window stand out just as plainly as those in front.

Yours faithfully,

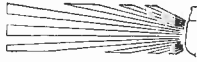
(Signed), J. W. BUNTING,

Director, Chamberlin's, Limited.



### The Importance of Operating Lamps at the Proper Efficiency.

**T**HE question of the actual efficiency at which an incandescent lamp operates is one which up to now has received altogether too little attention. Simply because an incandescent lamp was rated at a certain efficiency by the manufacturer it was assumed that this rating would hold, regardless of conditions under which the lamp was operated. The point was overlooked that the manufacturer's rated efficiency, candle-power, watts, life, etc., would only hold when operated at the rated voltage. The entire question of the satisfactory operation of an incandescent lamp of given quality depends upon the one factor "voltage."



# MAZDA HOUSE NEWS



It is important that the average voltage at the holder should be in agreement with the voltage marked on the lamp.

In the early days of the metal filament lamp it was a fairly general practice for electric light users to employ lamps rated about 5 per cent. above the supply voltage. The excuse for this was that the "pressed" filament tungsten lamps were fragile, their cost high, and life uncertain.

To-day, however, it is quite a different matter. The development of the Mazda lamp, with the drawn wire filament, has removed the objection of fragility. The Mazda lamp, as supplied to-day, has a very much longer average useful life than the carbon lamp, and its cost has been cut down by nearly 50 per cent.

In selecting Mazda lamps, therefore, there is no need to consider the question of fragility—lamps may be used rated at the actual voltage of the supply circuit without fear of premature failure, and with every advantage in point of light, economy and generally satisfactory service.

For every 1 per cent. of excess rated lamp voltage over the actual voltage of the supply, there is a decrease of 1.6 per cent. in the watts consumed by the lamps. This means an increase of 1.6 per cent. in wattage for each volt (on a 100 volt current) that the circuit voltage is increased or the lamp voltage lowered. This 1.6 per cent. increased wattage represents 1.6 per cent. increased revenue to the central station.

The under-running of lamps means a loss of revenue to the central station, a loss of light to the consumer, and a loss of lamp business to the contractor, because the life of the lamps is prolonged beyond an economical limit.

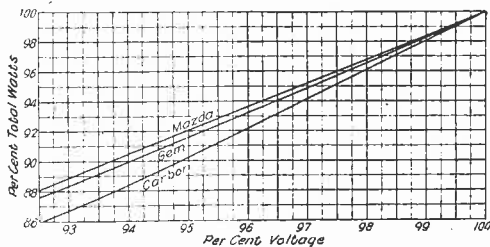


Diagram showing the per cent. decrease in watts consumption when Mazda, Gem, and Carbon Lamps are under-run.

Let us consider what the advantage of operating a 60 watt Mazda lamp at rated efficiency is from the central station's point of view. In 500 hours' burning a 60 watt Mazda lamp consumes 30 kilowatt-hours. If this lamp were operated at 96 volts

instead of 100 volts there would be a loss to the central station of 1.8 kilowatt-hours. With 10,000 lamps in service, and assuming 500 hours to be the average annual burning period and the charge per kilowatt hour to be 4d., this would represent an annual loss in revenue

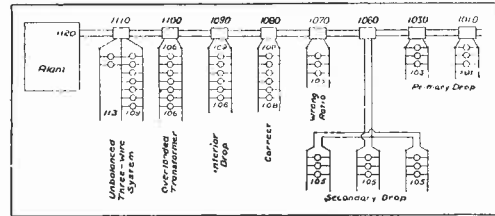


Diagram indicating the usual reasons for low supply pressures.

of £300. In the majority of cases the purchase of lamps of correct voltage would have brought this additional revenue without any increased cost. That is, it would represent 10 per cent. dividend on a £3,000 investment. An improvement in voltage conditions would not only result in increased sale of current for lamps, but would have a similar effect with other apparatus, such as flat irons, toasters, fans, etc.

Investigations show that many lamps are operated at from 3 to 4 volts below their rated voltage.

Lamps should be burned at their rated voltage for the following reasons:—

1. More light for the same cost, hence more satisfactory service to the consumer.
2. A better quality of light due to operating the lamps at a higher temperature.
3. It puts electric light in position to compete more favourably with other kinds of illuminant.
4. It relieves the central station of service complaints, most of which are due to the inefficient operation of lamps.
5. It ensures a continuous and profitable renewal business to the contractor, because the life of the lamps is not unduly prolonged.

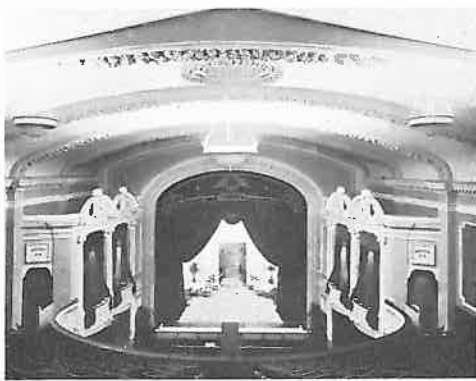
The efficient operation of lamps secures the maximum revenue for the central station, and maximum light, economy and satisfaction for the consumer. To ensure efficient operation the central station *must keep its voltage constant*, and the consumer must use lamps *marked with the actual voltage at the lamp-holder*.

### Our Illumination Photographs.

**A**LL the illumination photographs reproduced in "Mazda House News" are genuine; that is to say, they are taken by the unaided light of the B.T.H. units—and are not faked in any way afterwards.

There are not many lighting firms who can show such a tremendous variety of installation photographs as we can. And we think you will admit that every one is a gem. We employ a clever photographer, but even the cleverest photographer cannot make bad lighting look like good lighting, unless he descends to faking.

The interiors illustrated in "Mazda House News" appear well-lighted on paper, because they are well-lighted in reality; and they are well-lighted, because we are Illuminating Engineers and know and supply just what is best for each particular case.

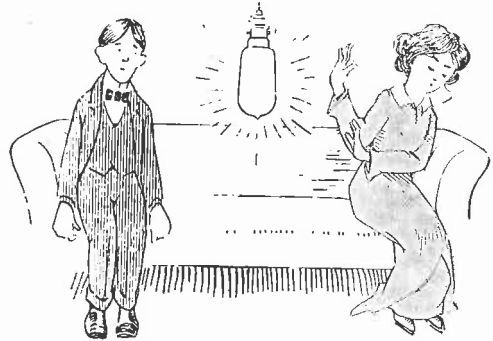


A PROVINCIAL MUSIC HALL.  
The beautiful "Eye-Rest" lighting here cannot fail to "boost" box office receipts.



Talking about the lighting of golf links, we are getting out a scheme for illuminating cricket pitches. So far as the bowler is concerned, he would be content if Mazda lamps were used in place of bails, but the fielders might object that such strictly localised lighting would make it hard to find the ball if it went to "earth." Perhaps an illuminated ball would meet the views of the majority.

### The Prude.



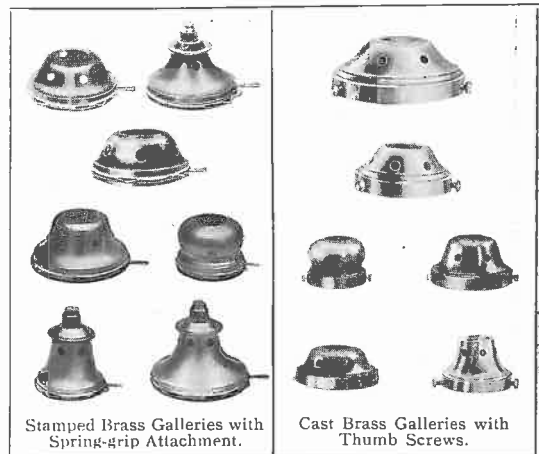
A Mazda, a man, and a maiden;  
A mansion which had the juice laid on:  
The maiden said "Hush,  
I'm sure I shall blush—  
There's a bare bulb, without any shade on."



### Galleries for Reflectors.

**T**HE function performed by the gallery in a lighting unit is a very important one. The lamp and reflector may be of the highest efficiency, but if the gallery does not hold them in the correct relative position the efficiency of the complete unit will be considerably lower than it should be.

#### SOME B.T.H. GALLERIES.



For every Mazda lamp and B.T.H. reflector there is the proper gallery—the gallery that will ensure the most efficient illumination results, by supporting the reflector just the



# MAZDA HOUSE NEWS

right distance above the lamp for correct focus. In our lists and price sheets on reflectors there will be found, opposite the catalogue number of each reflector, a letter and number indicating the correct gallery for that reflector.

Our range of galleries is the most complete on the market. We supply cast and stamped brass galleries in all standard diameters, and of varying heights. The cast brass galleries are fitted with thumb screws, and are intended for use with heavy reflectors such as X-Ray silvered glass reflectors, etc. For ordinary glass shades and reflectors the stamped brass galleries, with spring-grip attachment, are recommended, because they are lighter and more easily operated. The spring-grip, which gives a gentle uniform pressure all round the neck of the reflector, is not so likely to cause breakage as thumb screws, which are, more often than not, over-tightened. To attach the B.T.H. spring-grip gallery one has simply to pull back the protruding spring with the thumb, insert the neck of the reflector, and then push the spring over again so that it closes round and grips the neck of the reflector (see page 2).

Your customers will appreciate the simplicity of the spring-grip gallery. Keep a stock of them on hand and use them with our scientific reflectors—Veluria, Holophane, Pyro, Opalux, Sudan, X-ray, etc.



'KEEP SMILING' AT THE ALHAMBRA.

About 1800 Mazda lamps are used for the outside lighting at the Alhambra. The picture shows the Leicester Square frontage. If 'Keep Smiling' keeps running as long as the Mazda lamps keep burning, there will be permanent merriment in the region of Leicester Square.

Why are Mazda Lamps *first*?  
Because Mazda Lamps *last*.



Mazda Lamps outside the Balham Palladium (and inside as well—see page 10).



Silly ass!

## A Christmas Present for Yourself.

**M**OST men make themselves some sort of a present at Christmas—generally something which is both useful and cheap. We can think of nothing more admirably fitted for self-presentation (this applies to every one who reads this) than a copy of the 1914 edition of "The Electrical Engineers' Diary," published by Messrs. S. Davis & Co., St. Swithin's Lane, E.C. It is cheap (price 3/6), and it is more than useful—it is absolutely essential to all electrical men. What we should do without it heaven alone knows. The latest edition of "The Electrical Engineers' Diary" has been revised and considerably enlarged, and contains information not to be found elsewhere. Read the announcement on page 3: then write for a copy—not to us, but to the publishers.



# The Meaning of **Mazda**



**M**AZDA is not only the name borne by the strong electric lamp, wrought out after years of study and experiment, but is a word having a larger meaning of equal or even deeper significance to every user of electric light.

This larger meaning of "Mazda" is indicated by the service centred in the great Research Laboratories which are carrying forward the work that made possible the "Mazda" Lamp of to-day—which are striving further to benefit the world by making "Mazda" Lamps still better and cheaper.

To-day the "Mazda" Lamp with its strong Drawn Wire Filament is unsurpassed for Economy, Brilliancy, Durability and Life. Whatever new advantages may be added to this lamp it will always be known as "Mazda."

So that the name "Mazda" will continue to mean the master light —so that when you buy a lamp that bears that name, whether you buy it to-day, to-morrow, next month, or at any future time, you will be buying a lamp embodying every feature of efficiency and economy that has been or may be discovered by the ablest lamp experts in the world.

This Hand Lamp has Cord-grip and lamp holder. The guard is made of strong insulating material, very light. Cat. No. F7750. Price 7/6 each.



## TO COMPLY WITH HOME OFFICE REGULATIONS

As we go to press we read of a case where a firm was heavily fined for not installing a properly insulated Hand-lamp.

The Hand-lamp and Lamp-holder shown are shock-proof and non-inflammable. Other patterns are stocked, and we invite your enquiries whenever you are in the market for this important material.

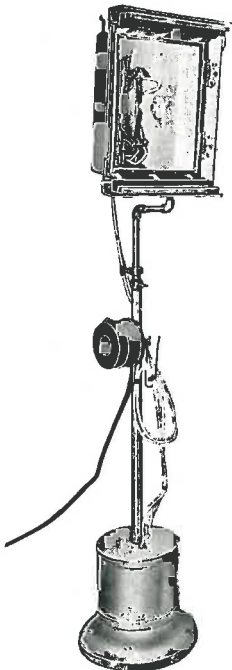


The Insulating Shield is easily attached after holder has been fixed in position and can be removed without unwiring holder. Cat. No. A263. Price 3/6 per doz. (complete with B.T.H. Switch Holder).



## B.T.H. THEATRICAL APPARATUS

A variety of appliances- Flood and Lens Lamps, Stage Plugs, Floor and Wall Pockets, Exit Lights, Dimmers, etc.—specially designed for Stage and Auditorium use, is described and priced in our Catalogue. Constructional details have been carefully considered, bearing in mind the severe operating conditions met with in practice, and the L.C.C. Rules and Regulations. Attention is particularly directed to B.T.H. Metallic Dimmers, which are simple, strong, flexible, easy to operate and easily installed. B.T.H. Theatrical Apparatus is very extensively used in London Theatres, giving every satisfaction. Write to Mazda House asking for further particulars.



This is a B.T.H. FLOOD LAMP.



This is a B.T.H. LENS LAMP.



# For the Lighting of Shop Windows and High Interiors

B.T.H. "X-Ray" Reflectors must not be confused with any other reflectors in the world. The indirect types made B.T.H. "Eye-Rest" Indirect Lighting possible; in the same way the direct lighting types are unbeatable in the particular fields for which they were designed.

## B.T.H. "X-Ray" Reflectors

It is well known that highly polished silver is one of the finest reflecting surfaces in the world—so *pure silver*, not quicksilver, is fired on to the "X-Ray" glass blanks (which are moulded with spiral and vertical corrugations to eliminate striation or uneven lighting.) Excellent though this construction be it is not sufficient—copper is plated over the silver and a final protective coat of durable elastic enamel is then applied. The pure silver is thus hermetically sealed—by the glass on the one side and the copper and enamel on the other. The result of this scrupulous care in manufacture is that

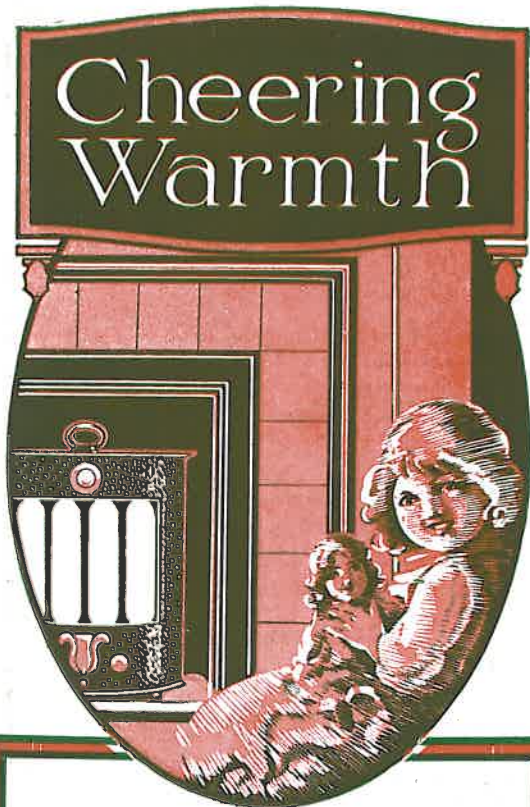
**B.T.H. "X-Ray" Reflectors cannot tarnish or lose their reflective qualities. Tests on "X-Ray" Reflectors after 12 years use prove their efficiency to be undiminished.**

Make the following comparative test—get any other mirror-glass reflector and tap the paint backing with the edge of a knife—the paint will flake off, *carrying the reflecting surface with it* and leaving clear glass. Then try the same experiment with a B.T.H. "X-Ray"—the elastic enamel will *not* chip off; on the contrary, you will have difficulty in *scraping* it off, and when you do, you reach the copper coating before you come to the pure silver which, because it is fired on to the glass, is very hard to remove.

Therefore, when you require reflectors of the highest efficiency for shop windows or interiors with high ceilings be certain that you get B.T.H. "X-Ray" Reflectors. Price list folder free from Mazda House.







**New and Distinctive Designs**  
OF  
**B.T.H. LUMINOUS  
RADIATORS**

- ¶ We have some very attractive designs in Radiators this season—excellent in workmanship—reasonable in cost.
- ¶ Let us know how many of our Radiator Folders, with your name and address overprinted, you want for distribution.
- ¶ By the way, whenever any of your customers require new Radiator Lamps, supply them with **B.T.H. Edison Radiator Lamps**—the world's standard.



**CEILING ROSES**  
REMOVABLE COVER PATTERN

In this Ceiling Rose (Cat. No. A 424, White Vitreous Enamel for cleat wiring—price 10/- per doz.) the terminals for the flexible cords are in the cover. It can therefore be wired on the bench and, when ready, fixed to the base by a half-turn. It can be temporarily removed just as easily when the ceiling is being renovated. These roses would be handy to you—order some.



TRADE MARK.

The above name will, in future, apply to all our

**WIRES,  
CABLES  
AND  
FLEXIBLE  
CORDS,**

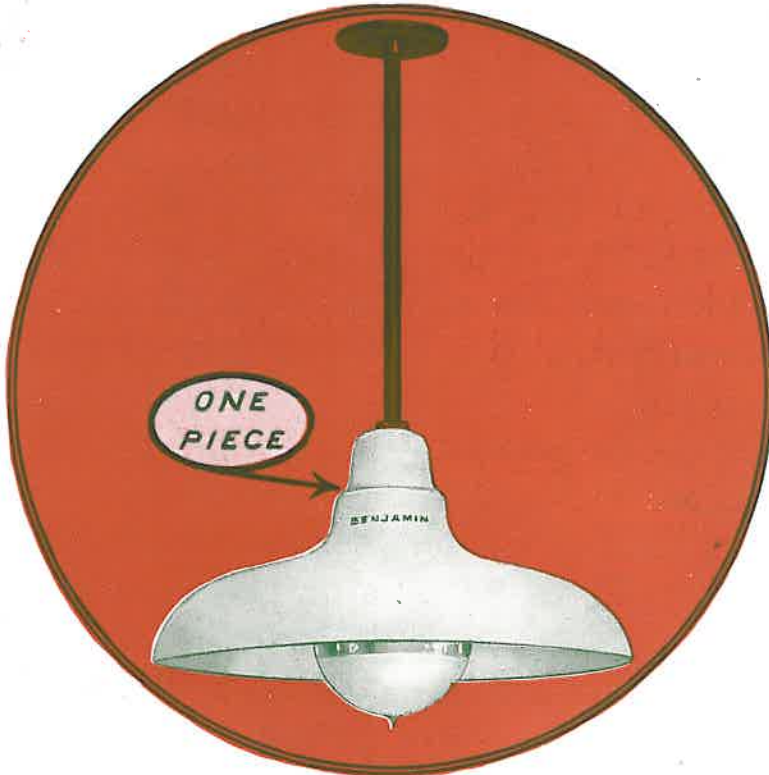
the quality of which remains as heretofore.

**The Best Obtainable  
At the Prices Listed.**

Your enquiries are invited. We hold large stocks of all grades.

For Factory and Outdoor Lighting

# BENJAMIN REFLECTOR FITTINGS



The Illustration shows the Concentrating Type.

The Benjamin Reflector Fitting is a one-piece device complete with a hooded lampholder which is protected from all kinds of rough usage.

Benjamin Reflector Fittings have, for the past five years, been extensively used all over the world, and can be most confidently recommended for industrial and outdoor use.

### PRICES—CONCENTRATING TYPE.

Wattage of Mazda Lamp	Reflector only				Reflector, with 18" of 1/2" iron pipe and 4" plate			
	For Bayonet Cap Lamps		For Edison Screw Lamps		For Bayonet Cap Lamps		For Edison Screw Lamps	
	Cat. No.	Price each	Cat. No.	Price each	Cat. No.	Price each	Cat. No.	Price each
20 to 80	F 8214	s. d. 5 0	F 8217	s. d. 5 9	F 8220	s. d. 6 6	F 8223	s. d. 7 3
80 to 200	F 8215	7 3	F 8218	8 0	F 8221	8 9	F 8224	9 6
200 to 600	F 8216	10 0	F 8219	11 0	F 8222	11 9	F 8225	12 6

Prices include lampholders but not lamps.

Distributing Type—same prices, but Cat. Nos. range from F 8200 to F 8211 inclusive.

Particulars and data from

**THE BRITISH THOMSON-HOUSTON COMPANY, LTD.,**

**Mazda House, 77 Upper Thames Street, London, E.C.**

Sheffield, Manchester, Birmingham, Leeds, Middlesbrough, Newcastle-on-Tyne,  
Glasgow, Swansea, Cardiff, and Dublin.

# The British Thomson-Houston Co., Ltd.

The great Manufacturing Organization familiarly known as the B.T.-H. Co. is, as its name indicates, of British origin. The Works and Head Offices of the Company are at Rugby—additional Factories are at Willesden and Coventry—the Registered Offices & Export Department are at 83 Cannon Street, London, E.C., and the Lamp and Wiring Supplies Offices and Stores at Mazda House, 77 Upper Thames Street, London, E.C. There are Branch Offices in all important towns in the U.K., while the Company is represented either directly or indirectly in almost every part of the world.

All matters re "Mazda House News" must be addressed to Mazda House as above, and communications referring to Lamps and Wiring Supplies must also be sent to Mazda House or to the nearest Branch Office—for list of addresses see back cover of November issue of this journal.

