

The Problem of Illumination

THE following sentence appeared in a magazine a few weeks ago:

"From the beginning of time man has been accustomed to get light from a point—sun, moon, stars, torch, candle, lamp or electric light bulb. Now he is beginning to get light from tubes and surfaces. The age of indirect light is beginning."

But what is indirect lighting? It is the receiving of light from a source by reflection rather than directly from the point. Now one might ask: What is the objection to having a point source of light or how can indirect lighting be secured?

In answer to the first question only one example need be given. This objection is due to the effect of glare upon the eye. Everyone's attention is called to glare when they try to place their book in such a position so that a bright spot does not appear upon the page or plainly when they look at the light and then try to read.

Glare from light sources or from glossy surfaces contributes to eyestrain; it causes abnormal contraction of the pupil which in turn reduces visibility; it also compels continuous contraction of the ciliary muscle for accommodation. Going further; anything that causes eyestrain has a tendency to produce headaches, vertigo, blurring vision and digestive disturbances due to the expenditure of nervous energy.

Indirect Lighting
The most effective method known by which glare can be eliminated is by use of indirect lighting. This can be done by using a fixture which reflects all of the light to the ceiling and then back to the lower portion of the room, or if the ceiling is not white enough to reflect all of the light to the ceiling and then back to the lower portion of the room, or if the ceiling is not white enough to reflect most of the light, a happy medium can be reached by the use of other fixtures as near the same effect as possible.

When light is reflected from the ceiling of a room it comes from an area equal to that of the ceiling rather than from a point. This reflection causes the light to reach the occupant from millions of different directions. A system of this kind prevents distinct shadows and does away with glare entirely.

But, as was mentioned before, the ceilings in most homes will not reflect the proper amount of light so a smaller source than the ceiling must be used. As a first step, it might be said that all light bulbs should be frosted so as to increase the area of the source to that of the bulb. But one can still notice the bright spot in this type of fixture so an even greater precaution must be taken before much glare can be eliminated. This improvement may be secured by using a large frosted fixture at least eight inches in diameter and by having more than one source of illumination in the room. A very satisfactory method may be secured by using one large frosted fixture in the center of the room and a lamp nearby with a frosted bulb.

So far, the element of glare is the only thing that has been considered. But another and equally important factor is brightness, or amount of light. Brightness can be varied by three methods. First, by changing the voltage impressed. A bulb is made for a definite voltage and maximum efficiency can only be secured when the voltage of the bulb and that of the system coincide. The usual voltage of most systems is between 110 and 115 volts. A bulb of a certain wattage uses the same amount of power no matter what its voltage rating is, so it is economical to get the maximum amount of light from it.

Brightness may also be increased by increasing the wattage of the bulb used. It might also be stated here that the lighting efficiency (that is, the amount of light per watt) increases as the wattage increases. A 100-watt bulb produces

2.4 times as much light as a 50-watt bulb.

The third method of varying the brightness is by varying the distance of the source from the point at which the light is desired. As everyone knows, it is impossible to find out exactly how much light we have on the reading plane without actual measurement. But the following table will help to show the approximate position of fixtures to give 10-foot-candles which is the minimum amount of illumination required for correct lighting for reading.

Height of bulb from reading plane	Required wattage of bulb
Feet	Watts
1.1	25
1.4	40
1.6	50
1.8	60
2.6	100
4.0	200

This table presupposes that the light will be at a 30-degree angle from the vertical and that the conditions of proper voltage are fulfilled.

Guard Children's Eyes
This material is of particular importance now because the children who are in school are doing their work with the use of electric lights and it is of great importance that they receive the proper illumination during this plastic stage.

A noted physician has stated that 60 percent of eyes are so defective as to cause ill health, reduced efficiency, or poor eyesight. Eyestrain is one of the most widespread of all eye troubles and is responsible for more discomfort and disability than all other eye troubles combined. Insufficient light results directly in eyestrain and tends to develop defective vision. Inadequate illumination requires the eye muscles to maintain the eyes in an exacting degree of focus in order to see clearly. In many cases visibility is increased by bringing the eyes nearer the objects to be seen, which places abnormal strain on the muscles of accommodation and convergence.

Higher levels of illumination enable smaller objects to be seen and the same effect is also accomplished by wearing eyeglasses by those with defective vision. With one-fourth of the adult population wearing glasses the assistance to vision, which such appliances afford, is keenly appreciated. Since the aid given to seeing by means of eyeglasses and light can be expressed in the same units, the commonly appreciated value of the former serves as a measuring stick for appraising the value of mere light. In the business of lighting, many compromises are often made with respect to types of units, systems employed, and lamp sizes, yet there can be no compromise with eyesight.—Contributed.

DEFERS OPENING A WEEK

Despite the order of South Carolina's governor opening tobacco markets in that state on Monday, the eastern North Carolina markets will by order of Governor Ehringhaus be kept closed a week longer so that the signing of tobacco contracts, already over 80 per cent completed, can be finished. Buyers have promised higher prices when the markets are opened.

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ADMINISTRATOR'S NOTICE
Having qualified as administrator of C. L. Ingram, deceased, late of Macon county, N. C., this is to notify all persons having claims against the estate of said deceased to exhibit them to the undersigned on or before the 12th day of August, 1934, or this notice will be plead in bar of their recovery. All persons indebted to said estate will please make immediate settlement.
This, 12th day of August, 1933.
J. R. FRANKLIN,
H. G. CABE,
Administrators.
A17-6tc-S21

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NOTICE OF SALE
North Carolina,
Macon County,
In the Superior Court.
S. L. Frank, H. W. Cabe and W. C. Cunningham
vs.
W. L. McCoy, Ada Crawford McCoy, Ada Crawford McCoy, Administratrix of the Estate of Mrs. Flora Crawford and Henry G. Robertson, Trustee.

Under and by virtue of a consent judgment made and entered at the April Term, 1932, of Macon Superior Court, appointing the undersigned a commissioner of the Court, to sell the lands described in the complaint in this action when requested so to do by the defendant, Ada McCoy, at any time after 60 days from the rising of the court; and, the said Ada McCoy, having requested the undersigned commissioner to now make such sale, L. J. Frank Ray, the said commissioner, on the 16th day of October, 1933, at the South Court-house door in the Town of Franklin, Macon County, North Carolina, at 12 o'clock noon, will sell to the highest and best bidder for cash the following described real estate, to-wit:

Situated lying and being on the North side of Main Street in the Town of Franklin, Macon County, North Carolina, beginning at a stake at the southwest corner of the Bank of Franklin lot and runs Northward with the line of the Bank of Franklin lot to the Lassic Kelly lot; thence Westward with the line of the Lassic Kelly lot to the line of the H. G. Trotter (now Ashear) lot; thence southward with the lines of the H. G. Trotter (now Ashear) lot; to Main Street; thence Eastward with Main Street to the beginning corner including the new hotel Scott Griffin building.

This the 12th day of September, 1933.
J. FRANK RAY, Commissioner.
S21-4tp-O12

ADMINISTRATOR'S NOTICE

Having qualified as administrator of J. B. McDowell, deceased, late of Macon County, N. C., this is to notify all persons having claims against the estate of said deceased to exhibit them to the undersigned on or before the 16th day of September, 1934, or this notice will be plead in bar of their recovery. All persons indebted to said estate will please make immediate settlement. This 16th day of September, 1933.
W. E. McDOWELL, Administrator.
S21-6tp-O26

NOTICE OF EXECUTION SALE

North Carolina,
Macon County,
In the Superior Court.
Joiner Motor and Tractor Co., Inc.
vs.
Roy Vanhook, C. W. Vanhook and J. N. Pendergrass.
By virtue of an execution directed to the undersigned from the Superior Court of Macon County, in the above entitled action, I will, on Monday the 2nd day of October, 1933, at 12:00 M., at the Court House Door of said County, sell to the highest bidder for cash to satisfy said execution, all the right title and interest which the said J. N. Pendergrass, defendant, has in the following described real estate, to-wit:

Lying and being in the County of Macon and State of North Carolina the same being lot No. 3, of the division of the old Caroline Cabe, Beginning at a water oak on the river N. W. corner of lot No. 2, runs S. 88 East 79 poles to a stake; S. 2 West 4 poles to a Spanish oak; S. 88 East 128 poles to a black oak; North 2 East 25 poles to a white oak near John Cabe's old corner North 88 West 188 poles to a stake on the river; thence up the river with its meanders to the beginning, containing 28 acres more or less.
This the 28th day of August, 1933.
A. B. SLAGLE,
Sheriff of Macon County,
North Carolina
A31-4tc-S21

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ADMINISTRATOR'S NOTICE
Having qualified as administrator of C. L. Ingram, deceased, late of Macon county, N. C., this is to notify all persons having claims against the estate of said deceased to exhibit them to the undersigned on or before the 12th day of August, 1934, or this notice will be plead in bar of their recovery. All persons indebted to said estate will please make immediate settlement.
This, 12th day of August, 1933.
J. R. FRANKLIN,
H. G. CABE,
Administrators.
A17-6tc-S21

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road leading down the Matlock Creek; then south 58 W 75 pole to a white oak corner on side of road leading to old Rickman homestead; this being Lillian Hurst's corner; then south 43 E 14 poles and 6 feet to a Spanish oak corner; then south 80 E 23 poles to a white oak; then south 32 east 35 poles to a rock in road; then South 2 E 10 poles to the beginning. ALSO ONE OTHER TRACT, BEGINNING at a white oak corner on side road at the junction of the E. H. West road, and runs with Lillian Hurst line, South 41 W 52 poles to a red oak corner; then North 4 E with the Jenkins & West line—Base line, 54 poles to the southwest corner of Section No. 15; then south 64 E 36 poles to the beginning, containing all told 30 acres, and being the land described in a deed from W. J. Jenkins, and wife, Benna Jenkins, to Weaver A. Jenkins, dated November 30, 1928, and recorded in Book U-4, Page 298, Records Macon county, to which deed, as so recorded, reference is hereby made for a more complete and definite description of the land herein described.

And the said defendants Weaver A. Jenkins and wife, Charlotte Jenkins, will further take notice that they are required to appear at the office of the Clerk Superior Court of Macon county, in the courthouse in the Town of Franklin, on the 30th day of September, 1933, and answer or demur to the petition filed in said proceeding, or the petitioner will apply to the Court for the relief demanded in said petition.
This 30th day of August, 1933.
FRANK L. MURRAY,
Clerk Superior Court.
S7-4tc-NPCa-S28

NOTICE OF SALE OF REAL ESTATE

Default having been made in the payment of the indebtedness secured by a certain deed of trust executed to the First National Company of Durham, Inc., and the Union Trust Company of Maryland, Trustees, on the first day of July, 1928, by J. M. Moore and wife Ida Moore, on the lands described herein, said deed of trust being recorded in Book 32, Page 33, in the office of the Register of Deeds for Macon County, North Carolina, the undersigned, will, having been so requested by the holder of said indebtedness, offer for sale at public auction for cash to the highest bidder at the courthouse door in Macon County, North Carolina (the purchaser assuming all unpaid taxes and street assessments) at twelve o'clock noon on Monday, October 2nd, 1933 the lands described in said deed of trust, to-wit:

In the Town of Franklin, BEGINNING at a stake, the southwest corner of Lot No. 46 on the west side of Highland Avenue, said stake being distant 276 feet in a northerly direction from the North west corner of the intersection of White Oak Street and Highland Avenue, and running thence North 80 west with the line of J. M. Moore 150 feet to a stake in the eastern line of an alley; thence along and with the eastern line of said alley north 4 degrees East 138 feet to a stake in the line of William Sellers; thence along and with the southern line of William Sellers South 86 East 450 feet to a stake in the west side of Highland Avenue; thence along and with the west line of Highland Avenue South 4 degrees west 138 feet to a stake, the place and point of beginning.

The Union Trust Company having resigned as Trustee, as in said deed of trust provided the sale is being advertised and conducted by the undersigned Trustee.
This 30th day of August, 1933.
W. G. Bramham and T. L. Bland, Receivers, First National Company of Durham, Inc., Trustee.
S7-4tc-RDS-S28

NOTICE OF SALE

North Carolina,
Macon County.
Under and by virtue of the power of sale contained in a deed of trust executed by W. L. Higdon and wife, Mary Higdon to the undersigned trustee, dated January 28, 1932 and recorded in the Office of the Register of Deeds of Macon County, North Carolina in Book 32 of Mortgages and Deeds of Trust, page 336 and default having been made in the payment in the amount stated by said deed of trust and demand having been made on the undersigned trustee by the holder of the note secured by said deed of trust to exercise the power of sale contained in said deed of trust.
I will, therefore, on Monday, October 9, 1933 at 12 o'clock noon at the Courthouse door at the Town of Franklin, Macon County, North Carolina, sell to the highest bidder for cash the following described tract or parcel of land:

DESCRIPTION: An undivided one-half interest in the following described tract of land, situate, lying and being in the Town of Franklin, Macon County, North Carolina, on the south side of Main Street and more particularly described as follows: BEGINNING at the north east corner of the

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building now occupied by the Macon Theatre and running thence with the south side of Main Street south 66 west 73 feet to the north east corner of the lot decided by J. A. Porter and wife and W. L. Higdon and wife to Furman Angel; thence with the east line of the Furman Angel tract south 24 east 85 feet to the south east corner of said Furman Angel's tract; then north 66 east parallel with Main Street 73 feet to the south east corner of the building in which the Macon Theatre is located; thence north 24 west 85 feet to the beginning corner. Also an undivided one-half interest in the right heretofore conveyed to James A. Porter and W. L. Higdon, their heirs and assigns, to build to and use wall of the old M. A. Love store house as a part of the building now standing, or any building that may hereafter be erected on the property conveyed in this deed. Also an undivided one-half interest in all the rights, privileges and easements and reservations mentioned and reserved by the grantors in the deed heretofore executed by James A. Porter and wife, Mary V. Porter and W. L. Higdon and wife, Mary Siler Higdon, to Furman Angel, said deed being recorded in the office of the Register of Deeds of Macon County in Book R-4, page 337, et seq. Also an undivided one-half interest in the right of ingress, egress, and regress in and to the rear of the premises herein conveyed by a 30 foot alleyway as the same now exists or as the same may hereafter be opened up whether by private parties or by the Town of Franklin.
This 6th day of September, 1933.
R. S. JONES, Trustee.
S11-4tc-J&J-O5

EXECUTOR'S NOTICE

Having qualified as executor of Martha Jane Morrison, deceased, late of Macon County, N. C., this is to notify all persons having claims against the estate of said deceased to exhibit them to the undersigned on or before the 14th day of September, 1934, or this notice will be plead in bar of their recovery. All persons indebted to said estate will please make immediate settlement. This 14th day of September, 1933.
HARLEY MORRISON,
Executor.
S21-6tp-O26

ADMINISTRATOR'S NOTICE

Having qualified as administrator of J. P. Moore, deceased, late of Macon County, N. C., this is to notify all persons having claims against the estate of said deceased to exhibit them to the undersigned on or before the 14th day of September, 1934, or this notice will be plead in bar of their recovery. All persons indebted to said estate will please make immediate settlement. This 14th day of September, 1933.
HARLEY STEWART,
Administrator.
S21-6tc-O26

NOTICE OF FORECLOSURE SALE OF LAND

North Carolina,
Macon County,
In the Superior Court,
August Term, 1933.
Atlantic Joint Stock Bank of Raleigh, a corporation
vs.
J. T. Young, Sarah A. Young, Margaret E. Young, Gilmer A. Jones, Trustee, The Bank of Franklin, W. C. Cunningham, J. M. Moore, F. I. Murray, R. M. Shook, Alex. Moore, C. S. Brooks, W. A. Rogers, Gilmer A. Jones, F. Angel, Geo. Carpenter, Adm. of the estate of Sarah A. Young and Emma Young.

Pursuant to a judgment entered in the above entitled civil action at the November Term, 1932, Macon Superior Court by his Honor Frank S. Hill, Judge presiding, I will on Monday, the 2nd day of October, 1933, at 12:00 o'clock noon, at the County Courthouse door in said county, sell at public auction to the highest bidder therefor the following described lands, situate in said County and State, in Franklin Township, and bounded and described as follows:

All that certain piece, tract or parcel of land, containing 77.6 acres, more or less, situate, lying and being on the Dillsboro road about one mile East of the Town of Franklin, in Franklin Township, Macon County, State of North Carolina, having such shape, metes, courses and distances as will more fully appear by reference to a plat thereof made by W. N. Sloan, Surveyor, in Sept., 1920, which said plat is recorded in the Office of the Register of Deeds for Macon County in Book F-4, of Deeds, page 163 and being bounded on the N by the lands of Bob Young and Jim Potts, on the E by the lands of Jim Potts, the Dillsboro Road, the Enloe lands, on the S by the Dillsboro Road, the Enloe lands and the lands of R. M. Shook and the Tennessee River, and on the W by the lands of Bob Young and the Tennessee River, and being more particularly described as follows:

Beginning at a stake on the E bank of the Tennessee River, the Northwest corner of the R. M. Shook lot, runs North 0.85 chain to a stake; then N 73 E 7.16 chain

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to a stake; then S 55 degrees 15 minutes E 8.27 chains to a stake on the E bank of the Dillsboro Road; then N 42 degrees 40 minutes E 1 chain to a stake; then N 32 degrees 40 minutes E 3.00 chains to a stake; then N 15 degrees 40 minutes E 5.00 chains to a stake; then N 32 degrees 40 minutes E 18.48 chains to a stake; then N 45 degrees 15 minutes W 6.04 chains to a stake; then N 65 degrees 40 min. W 8.88 poles to a stake; then N 57 degrees 40 minutes W 4.50 chains to a stake; then S 47.00 W 35.83 chains to a stake on the E bank of Tennessee River; then up the river with its meanders to beginning.
The terms of sale are for cash. All bids will be received subject

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to rejection or confirmation by the Clerk of said Superior Court and no bid will be accepted or reported unless its maker shall deposit with said Clerk at the close of the bidding the sum of Two Hundred (\$200.00) Dollars, as a forfeit and guaranty of compliance with his bid, the same to be credited on his bid when accepted.
Notice is now given that said lands will be resold at the same place and upon the same terms at 2 o'clock P. M. of the same day unless said deposit is sooner made. Every deposit not forfeited or accepted will be promptly returned to the maker.
This 1st day of September, 1933.
R. S. JONES, Commissioner.
S7-4tc-J&J-S28

Vaccination For Typhoid Schedule

Schools to be visited and vaccinated to prevent typhoid fever on the dates here given:

DISTRICT	DATE
BURNINGTOWN	Sept. 25—Oct. 2-9
ELLIJAY	Sept. 29—Oct. 6-13
COWEE	Sept. 26—Oct. 3-10
SMITH'S BRIDGE, etc.	Sept. 27—Oct. 4-11
FRANKLIN	Sept. 29—Oct. 6-13
NANTAHALA	Sept. 25—Oct. 2-9
HIGHLANDS	Sept. 26—Oct. 3-10
FRANKLIN and Cartoogechay	Sept. 27—Oct. 4-11
MILL SHOAL	Sept. 28—Oct. 5-12

This vaccination treatment is a preventive of typhoid fever. It is given FREE to all the people of Macon County regardless of age, who will meet the physician at the places and dates here given. Three trips to the school house in the various districts may be the means of saving a long spell of sickness and it may be life. In some sections of typhoid have been reported this Summer. You never can tell when you may be infected. VACCINATION gives IMMUNITY for from one to three years. It costs only a little time to be on the safe side.

It is the expectation of the Boards of Commissioners, Education, and Health that not less than 10,000 people in the County will be vaccinated this time.

From the nature of the case it will not be possible to tell the exact hour at which the doctor will arrive. He will follow this schedule: He will get to the first school house on the list in each group by or soon after 8:30 A. M. Eastern Time. He will proceed on to each school in that particular group as rapidly as he can. For example: In the first group given, he will begin at Oak Dale about 8:30 A. M. then Burningtown, next Morgans, and last at Tellico, and so on through all the other groups. If he should fail to reach some schools which are last in their group before school closing time, 4:00 P. M., the people should wait till he arrives. The schedule given here will be followed exactly.

M. D. BILLINGS, Supt. Schools and Secy. Co. Board of Health.
September 14, 1933.

Notice of Sale

NORTH CAROLINA,
MACON COUNTY.

Notice is hereby given that the undersigned Administrators of the Estate of C. L. Ingram, deceased, will, on Saturday, the 30th day of September, 1933, beginning at 10 o'clock a. m., at the residence of the late C. L. Ingram, sell, to the highest bidder, the following described personal property, to-wit:

Approximately 50 bushels of wheat.

11 head of mitch cows; 1 bull, full blooded Hereford; 10 head other cattle, ranging from 6 months to 2 years old; 1 Fordson tractor; 1 harrow; 7 head sheep, all ewes; farm tools, and all other personal property belonging to C. L. Ingram at the time of his death, except what has been allotted to his widow as her year's allowance.

All sales amounting to less than \$20.00 will be for cash. All sales amounting to over \$20.00 will be made for half cash and half in the form of a promissory note, to be approved by the undersigned Administrators, due three months from date, if the purchaser so desires. Notes to bear interest from date at the rate of six per cent.

This September 8th, 1933.

J. R. FRANKLIN
HARVE CABE,
Administrators of the Estate of
C. L. Ingram, deceased.



Try our bread. There's none finer. Made of the finest flour, in a sanitary bakery by an expert baker—it just can't be beat. Visit our bakery and see how it is made.

Pies and Cakes Baked to Order
KEY CITY BAKERY
Back of Press Office