

Sound Picture Men Prepare For Precision Triumph

'Sound-On-Film' Method 'Speed Control' Latest Marvels Of Projection

Precision! Those of you who did time in the army heard many a lecture on the subject of precision. Those who reached the firing lines in France learned the great value of flattening out and flattening out pre-

Those of you who have done any flying have had additional demonstrations of the necessity of precision and timing. Lindbergh lives in triumph where others have notable funerals because even his casual landing is timed like the movements of a classic dancer. Precision has become the passion of modern industry, and there are some industries which depend for their life on precision and one of these is that new phase of motion pictures—the sound pictures.

Challenges Stage
At the McDonald theater the first few days of this week they will be showing "The Squall," a colorful drama of gypsy life which was a sensation on the "speaking" stage. New York during two long runs, success being due not only to its gripping plot but to its romantic setting, graphic lines, colorful background.

"The Squall" as you will see it at the McDonald you will find precision in all of the remarkable lines of spoken situations, all of the action and in addition settings, such as beyond the possibilities of the "speaking" stage with its fixed background.

You will see Myrna Loy as Nubi, a beautiful, disturbing gypsy girl, living through the life of a little Hungarian village with Hungarian names and words of such other stars as Alice Joyce, Loretta Young, Zasu Marshall, Richard Tucker, and Nicholas Brown. To this time, the uses of sound pictures have been in many respects primitive. The talking has been interwoven with the silent scenes in many pictures. There have been a few "all-talking" pictures, but in "The Squall" the art of the talking picture has emerged in triumph and this big production the talking picture says that they can do all and more than any previous stage craft could do.

And it all goes back to Precision. Intricate Business There's a great story back of such a picture as "The Squall." As you sit in a comfortable seat watching the drama unfolding on the screen, it is all quite simple. Funny, nobody didn't think of it long ago. We probably say to yourself that it is just a matter of getting a phonographic record of the spoken lines and turning on the gramophone at the proper point in the picture. They tried that years ago, dear reader. If you could get a phonographic record of the spoken lines and turn it on at the proper point in the picture, it would be a great thing. But it is not so simple as it seems. It is a matter of precision.



Above—the movable sound proof camera booth that is used in taking vitaphone sound pictures. It must be absolutely sound proof and its construction and wiring are a triumph of engineering. Below—the type of projection machine for sound pictures used at the McDonald theater showing the disc attachment for those pictures which use disc sound reproduction. In the later "sound-on-film" process the sound record is part of the film itself, which can be seen running into the projector. The black box at the lower right side of the picture is the mysterious "speed control" device which guarantees absolute synchronization.

emphasizes the low notes and the two smaller horns at the top pick out the finest high ones. Mr. Brown has a perpetual job as critical audience at the rehearsals which are usually between midnight and morning on the day of a change in pictures.

But the real key to perfect sound production is "speed control." If you attempt to run sound pictures with ordinary current, and devices the speed fluctuations due to current variation would produce the same bad effect of wobbles and jarring notes that you get if you tamper with the speed dial on a phonograph while a Krieger record is playing.

The McDonald switchboard is coupled with both municipal and Mountain States current so that there is a minimum chance of a break in main power supply, but the power lines in the operating room are used to charge a huge array of storage batteries which are used for operating current because they give a supply that is steady.

The Magic Box Even this, however, is not sufficient. Beside each machine is a small black iron box about the size of a suit case which contains the real secrets of sound picture magic. For many months this box was kept sealed under requirements of Western Electric, but now it can be opened because its contents are so intricate that there is little danger of its being duplicated.

This sound control box which contains tubes, coils, wires, magnets and a little bit of everything known to electricity takes the current from the storage batteries and feeds it to the motors which run the film and the sound discs or the "sound on film" in an absolutely even quantity. If the motors tend to slow down by a fraction of a fraction it feeds in more juice; if they tend to speed up it cuts down the juice. The speed is absolutely inflexible.

The "sound on film" is an even more marvelous thing. Back in the studios, the voices of the actors are caught up in devices which transform sound waves to light waves of corresponding length which can be photographed onto film and these sound waves appear as a series of short and loud lines or wavy projections on the side of the picture.

Now it happens to be exactly fourteen inches from the point on the projecting machine where the picture passes the projectors to the point where the sound can be picked up by the amplifiers so the sound track has to be spliced onto the film track exactly fourteen inches in advance of the pictures so that the pictures and the sound will reach the audience at precisely the same moment.

It's Fool Proof The chief advantage of "sound on film" which is fool proof synchronization is not possible with discs would be lost if this splicing was out of line by a hair's breadth but they have in Hollywood sound film cutters who can read the mysterious lines and dashes the way a printer reads type. (They frequently correct the star's pronunciation by cutting.)

But having got the sound track



Myrna Loy, as Nubi, Gypsy Gale of Passion in "The Squall" at the McDonald Sunday, Monday, Tuesday and Wednesday.

the proper fourteen inches ahead of the picture, the next trick is to transform the light waves of the sound track back into sound waves and this is done by another mysterious device known as the "photo-electric cell" which is a silver coated glass bulb with one "eye" left bare to catch the light. The amount of light entering this cell exactly controls the amount of electrons released into the amplifiers which are very much like ordinary radio loud speakers.

For the mechanically minded person a trip through the sound projection room would be a treat. The layman can get only the high spots, for while the operators are very obliging they are also very busy people.

However, nobody has a more interesting job. Mr. Gibbs and Mr. Endicott are looking forward to making "The Squall" the best of their productions, for in these days the operator is more than a mechanical man. He has to be an artist with broad knowledge of theatrical effects and sound judgment and resourcefulness in producing them.

Nearly 700,000 spiders, it has been estimated, would be required to produce a pound of web. A single spider has been known to spin a thread 34,800 yards long.

Gold is the best conductor of heat, but it is second as a conductor of electricity to copper.

In Holland all Christian names after the first are taxed.

SERVICES FOR MRS. C. JOHNSON SUNDAY

JUNCTION CITY, June 29.—(Special).—Services for the funeral of Mrs. Catherine Johnson of Newburg will be held from Miller's chapel Sunday afternoon at 3:30 o'clock. Rev. Gleyser, pastor of the Newburg M. E. church, officiated. Mr. and Mrs. E. Johnson and their family came to Junction City 22 years ago. Mrs. Bert Cooley, a daughter, and her husband, with whom Mrs. Johnson has made her home, moved to Newburg seven years ago where Mrs. Johnson has lived since. For the past few years she has been in poor health but only the day before her death she was up and about as usual. At 2 o'clock on Friday morning she was taken ill and passed away at 8:45 a. m. of the same day. Mrs. Johnson was 80 years, 3 months and 14 days old. She was a native of Canada where she has two sisters still living. She leaves one daughter, Mrs. Cooley; two grandchildren, Inez Cooley and Mrs. Florence Brown; and two great grandchildren. She was an active member of the M. E. church.

The population of the continental United States is now increasing at a rate of approximately 1,400,000 persons per year, or about one person every 23 seconds. Omelhus and tram tickets issued in London each day total up to 7,000,000.

COMING SUNDAY! **REX** AND MONDAY! **THEATRE**

SALLY O'NEIL

IN Hardboiled

Arthur Somers Roche's sparkling romance of Broadway maidens who dance through love, luxury and lounge lizards without cracking the shell.

GANG WAR

with **OLIVE BORDEN** and **JACK PICKFORD** LAST TIMES TONIGHT

Come! Celebrate! The McDonald's "Thank-U-Week"

In Honor of Six Months of PERFECTED TALKING PICTURES in Eugene, the McDonald Has Arranged This Gala—

100% ALL-TALKING! ALL-SINGING! PROGRAM UNPARALLELED

STARTING SUNDAY

VITAPHONE BRINGS TO THE 'LIVING SCREEN THE STAGE SENSATION OF THE YEAR-- ALL-TALKING! ALL-SINGING! ALL-LOVING!



ONLY AT THE McDONALD CAN SUCH QUALITY TALKING PICTURES BE SEEN and HEARD THE HOME OF PERFECTED TALKIES

McDONALD

THE HOME OF TALKING-PICTURES

EXCLUSIVE WESTERN ELECTRIC SOUND SYSTEM

WHAT PRICE TALKIES?

The Talking Picture equipment installed in the McDonald is the ultimate achievement of the Western Electric laboratories, and is the finest type evolved by them. The investment of installing this equipment in the McDonald was nearly \$25,000, originally, and two expert engineers of the Western Electric company are on our payroll for a weekly inspection and adjustment of this equipment. Does it not stand to reason the McDonald equipment should "speak for itself"?

Additionally, the McDonald, because of its approved type of equipment, has the absolute pick of the better talking pictures from the leading producers, who naturally wish their productions to be seen and heard to the best advantage. The McDonald will always lead.

Remember, The McDonald Has the Only Western Electric Sound System in Eugene.

McDONALD

THE HOME OF TALKING-PICTURES

EXCLUSIVE WESTERN ELECTRIC SOUND SYSTEM

PLAN NOW TO "SEE AND HEAR" THESE BIG TALKING SPECIALS ON W. E. \$25,000.00 EQUIPMENT

"HIS LUCKY DAY," with Reginald Denny
 "STARK MAD," with H. B. Warner
 "The WILD PARTY," with Clara Bow
 "The VALIANT"
 "The DONOVAN AFFAIR"
 "The GHOST TALKS"
 "THUNDERBOLT"
 "The DESERT SONG"
 and "BROADWAY"

"McDonald Talkies Speak for Themselves."

REMEMBER — THE MAMMOTH McDONALD ICE-WATER COOLING PLANT MANUFACTURES COOL AND COMFORTABLE WEATHER NO MATTER HOW HOT IT IS ON THE OUTSIDE