THE SOUND INVESTMENT

N ORCHESTRA leader who had been forced out of a \$350-a-week position in a motionpicture theater that had installed sound apparatus and so had done away with an orchestra that cost \$2850 a week, went to the president of the motion-picture producing and distributing company that owned the chain of which the theater was a part.

The musician lost his temper and told the producer, "We'll put sound pictures out of business in three months."

"Good!" the producer answered. "If you can do that I'll give you a million dollars."

His was one of the many companies that were caught unprepared when sound pictures began singing their siren songs to the motion-picture patrons, and he was much in the position of a manufacturer of mah-jongg sets in the midst of a demand for books on contract bridge. He had no sound pictures to sell and all he could do

was sit and listen to the cries from his sales force, which, in despair and in the red, wailed, "When do we get talkies?"

Pictures from the studios of one of his competitors, with even a few minutes of talking in them, made at a cost of less than \$50,000, were grossing more than \$1,000,000 superspecials, while all-talking pictures were paying their entire production cost with the rental received from New York and Brooklyn first-run engagements alone. Theaters that had been operating at a loss installed sound equipment and jumped their receipts 50 to 100 per cent. A theater in Pittsburgh that figured it couldn't possibly gross more than \$32,000 a week without removing the paper from the walls to increase the capacity, took

Floated Ashore on a Phonograph Disk

in \$43,000 with its first talking picture.

A THEATER in a small Southern city that had never booked even the greatest pictures for more than two weeks, played a talking picture seven weeks and took in more money than it did in the previous three months.

An actor in Hollywood who seemed to be all through was found to have a speaking voice that recorded perfectly and was at once rated as one of the most popular stars on the screen, and a blackface, musical-comedy singer, noted for his mammy songs, within six months became the greatest box-office attraction in the world.

The motion-picture company that suddenly had taken the lead in the industry had risen from lower depths than its great star. Almost going down for the third time, it had grasped at a phonograph disk, which not only floated the company ashore but proved to have recorded on it the key to buried treasure worth millions of dollars.

The panic was on!

The public was clamoring for talking pictures, theater owners were rushing to New York and, with lavish displays of certified checks, trying to buy sound equipment. Producers were frantically

By JEROME BEATTY



William Haines as Jimmy Valentine Prepares to Sandpaper His Fingers and Rescue the Child From the Bank

Vault, Thereby Exposing His Past

building sound stages and wondering where they were going to get the recording apparatus to put in them. Motion-picture stars in Hollywood spent their evenings taking elocution lessons from actors from the speaking stage



Colleen Moore and Gary Cooper in the Jane Cowl Stage
Vehicle, "Lilac Time"

who, after starving in Hollywood for months, suddenly found themselves growing rich.

Even office boys and stenographers formed pools and gambled on the stock of the leading talking-picture producer, which climbed more than 100 points in a year as a result of profits of \$1,000,000 a month.

Charles W. Pandemonium and two motion-picture-producing companies—one of which had made a tremendous success with a talking news reel—were bosses of the industry.

Not So Dumb

THE companies that I had started late could only sit and wait. It took time to build stages, it took time for the one manufacturing company that was turning out sound equipment to get a plant adjusted, and even when the apparatus was delivered, it would take time to install it and to make the experiments necessary before production began. They could no more hurry things

along than a golf player can straighten out a sliced drive by twisting his body in agony as the ball sails through the air toward the rough. But that didn't keep them from twisting.

That was the situation at the beginning of last summer. There was no prospect that promised sound studios in operation within less than six months, so the limping producers set about to try to catch up with the only two companies that were equipped to make talking pictures. Something had to be done quick to meet the competition of talking news reels, short pictures of singers, bands and orchestras, and the feature pictures that had talking sequences in them.

One producer who had no recording apparatus devised a plan for putting a talking sequence in a picture that already was made. The actors and the sets were in Hollywood. The only available recording apparatus was in New Jersey. It was said by experts to be possible to run a telephone wire from the microphones in California to the recorder in New Jersey while the sequence was being acted and spoken and photographed. The cost would be many thousands of dollars, but the company was in such desperate need of talking pictures that money meant nothing. The idea was given up, however, since they found another way that would do almost as well.

A leading phonograph company entered the field of sound pictures. It bought an old church, installed a machine for projecting motion pictures, made the building soundproof, put in recording apparatus and announced that it was ready to make sound pictures out of silent ones.

Here in the race the laggard companies got their second wind. Records bearing music, singing and sound effects were made to synchronize with silent pictures so well that many of these sound pictures were as satisfactory as real talking productions, and they were booked into first-run theaters which had given up their orchestras and which were showing only pictures that carried their own music.

Making a talking feature picture was a complicated process, but the method of adding sound to a silent picture was rather simple.

Name 1929

A synchronized score was written and rehearsed while the picture was run over and over again. The effect men, who produced revolver shots, airplane effects, honking automobile horns, crashes and other such sounds, worked with the orchestra.

After many rehearsals the microphones were set up, the film was put on the machine at a frame marked Start, the recording staff placed the needles on the wax disks at a spot similarly marked, the orchestra leader raised his baton and they were all off in a bunch.

The records, larger than ordinary phonograph records and run at a lower speed, will carry nine minutes of sound. The average motion-picture reel runs ten minutes, so that sound pictures must be put on more reels. Sound that is on a record is there forever and cannot be changed, and the orchestra, the singers and the effect men must do their stuff without error for nine consecutive minutes in order to produce a record that can be used.

The talking-machine company immediately was crowded with business. Time was booked by the producing companies months ahead. Some companies used their own orchestra leaders, composers and men. Others let the talking-machine company handle the entire job. The cost of making synchronized records for a picture ran from \$18,000 to \$24,000.

The Crowd Gives Ear

THE first two pictures "sounded" by this method were Richard Dix in Warming Up and Colleen Moore in Lilac Time. The former was a baseball picture, and in the scenes of the big game where the hero went in at the last minute and saved the World's Series for the home team, the cheering of the crowd, the caustic remarks from the bleachers, the thump of the ball and the crack of the bat were well recorded. It was tried out secretly in a theater in Yonkers, but the news got around and scouts from rival companies were in the audience, and the next morning, in the offices of at least three great producing companies, rapid prepara-

tions for turning silent pictures into sound pictures were under way. There was no doubt that even this sort of treatment made a very good picture out of a pretty good one.

When the first synthetic-sound picture opened in New York City the newspaper critics sniffed at the sound effects. Some were out of register, they said, and the whole thing was artificial and ineffective. But the crowds fought to get in and the people who saw the show told their friends to see it.

Lilac Time opened in New York without sound, with an orchestra playing the score and with men backstage shooting shotguns into steel drums for bomb effects. Because of delay in installing the sound equipment the synchronized records were not used until the second week. When sound was installed business jumped immediately. Most of the New



Ruth Chatterton and John Loder in the All-Talking Picture, "The Doctor's Secret"

York City critics who saw the picture on the opening night with orchestral accompaniment thought little of it and two weeks later they showed no confidence in the press agent's assertions, backed up by box-office statements, that it was a better show with sound. All but one refused to come back and hear it, and he said it was even worse. He grudgingly admitted that although he thought the sound wasn't so good, it did smell better than any other picture on Broadway—which was due to lilac perfume blown through the theater during the sad scenes.

Few critics in any part of the country have had kind words for sound pictures in their early development. But the public demonstrated definitely that it wanted them. "Criticisms terrible. Business tremendous," read a telegram to a producer from his manager in Dallas. This told the story of early sound pictures everywhere.

The critics were not alone in their opinions. Many of the more intelligent and discriminating classes of theatergoers, after hearing a talking picture once, said they had had enough. But people kept coming from somewhere, and for that reason all the motion-picture industry thought about was sound. The different kinds of sound pictures brought about definitions that the public still does not clearly understand. Most of the theaters try to define them so that there will be no complaints. A picture With Sound is a picture that contains no talking, that has merely a synchronized score. A picture With Sound and Effects contains no talking, but has a score and cued noises. A Talking Picture has talking, music and effects, although the percentage of talking may be comparatively small. When you see An All-Talking Picture advertised, you may be sure that all lines are spoken.

If the public was confused over the sound situation, it was clear-headed compared to the motion-picture people. They did not even know what process to use.

Talking pictures had been smoldering for years. Thomas A. Edison produced them in 1912. Minstrels told jokes, dogs barked, a man broke a plate, and people sang—all very bad as to quality, lacking in enough volume to reach the back seats, and often out of synchronism. A great vaudeville circuit seized upon the novelty and lost \$500,000 in trying to make it popular. This circuit, strangely enough,

is now owned by one of the two leading producers of soundpicture equipment. The process of recording sound on film had been turned to practical use by De Forest, who showed talking pictures throughout the country without startling anybody.

A Spade a Spade, a Dingus a Dingus

THE new thing that talking pictures had to offer was proper amplifiers which delivered the necessary quality and volume, made possible through the perfection of the method of turning sound into light and light into sound, and by amplifying it electrically on the way.

This is not a technical treatise on sound pictures, which fact probably already is evident. Books are at hand out of which could be copied formulas and curves and charts and technical phrases, so that one might get right up and make his own sound equipment out of his talking machine and his home movie camera, but such will not be done. Names of the different pieces of apparatus will be called by their correct names if such names seem to fit, but if later.

an attempt is made to describe something that looks like a dingus—in these particular columns it will be called a dingus.

In the summer of 1924, the Western Electric Company believed that it had a talking-picture machine and confidently it set about to show it to the motionpicture industry. Nearly every company was approached and, just to stop the Western Electric from bothering any more, they all sent men down to West Street to see and hear a picture of a man playing a violin.

It looked simple. A motion-picture camera synchronized through a motor with a turntable bearing a wax disk took a picture. At the same time the sound was recorded on the disk. Copies of the film and copies of the film was put on a projection machine and the record on another

Jeanne Eagels, Reginald Owen and O. P. Heggie, Lately of the Speaking Stage, in the New Talking Picture, "The Letter," by W. Somerset Maugham

(Continued on Page 129)

(Continued from Page 125)

Holloway '32 looked up. "You don't want the typewriter back! I wrote my father about it and he sent me the money. He said it was a bargain."

"Well, if you still want it, I guess you can keep it. It certainly brought your marks up lately."

"Yea, and I've almost finished that last book. I'll be over tomorrow."

"Good." Mr. Faulkner went over to his house. Grub Davidson sat disconsolately on the veranda.

"How's for a loan of five, Stu?"

"Broke?"

BEST S PARKET

"Broker'n hell."

"Well, I'll tell you," said Mr. Faulkner,
"I had to sell my phonograph to Benny
Cohen to take in the prom—sold it for five
smackers, with the records, and the louse
charged me ten when I bought it back from
him. You still going to use those boots?
I can't swing the black ones—haven't got
the money."

Mr. Davidson's face brightened. "Will you buy them back?"

"I'll do the best I can for a brother, Grub, but I guess that isn't any too much. I can go ten for them, with the spurs."

"They're yours!" shouted Mr. Davidson, and bolted up the stairs to get them.

It was three weeks later and the academic year was in its final death throes. There had been a day in the interval when the college body had balloted and a night in the interval when mysterious figures had called upon lucky men.

Mr. Stuart Faulkner, assistant manager of baseball, member of the humorous-magazine board, honorary member of Paint and Powder and—holy of holies—a new arrival in the sanctity of the junior society he had picked for himself months before, sat at his desk before four exhibits. The first three—three very thick and faintly fragrant letters on heavy white lawn. The fourth a notebook, the left-hand page of which read:

			\$	100.00
Unaccounted for			.\$	50.00 50.00
Cash on Ha				

and the right-hand page:

	I)IS	BU	RS	SE	ME	NT	S					
Somehow spent													\$10.00
Duving back boots													10.00
" " phone	ogr	rap	oh										10.00
Total													\$30.00
Senior Ball			*	119	*	*			*				10.00
House tea dance .		- 50			1.5		*	*	***	•			10.00
Car mre	150												15.00
House board 3 day	S											·	8.00
Flowers						į.	Ů						2.00
Miscellaneous		-		9	18						200		20.00
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His door opened and Bill Corey came

"Hi, Stu; going to the Senior Ball?"
"Yes, I guess I'll stay over for it, Bill."

"Want to swap over a couple of dances?"

"Well I tell you Bill I will if I have

"Well, I tell you, Bill, I will if I have any, but I'm sort of pretty well filled up already. I'll remember, though, and if there are any I'll fix it for you." "Thanks."

Alone once more, Mr. Faulkner sank into a gentle reverie—a memory of gold and pink; a twinkling flame to consume young hearts—a flame of rose leaves and myrrh and frankincense. She was at Dartmouth last week, New Haven the week before, Williamstown before that. A gorgeous little girl; a gossamer mist of joyful life—divine, glorious.

He took a sheet of his very best note paper and wrote an answer to hers. He sealed the envelope carefully, stamped it and wandered down toward the store, where he dropped it in the box. Forgoing his usual lead shot, he wandered on in the lazy air, hands in pockets; caring not, listing not for tomorrow, for all the years ahead that would settle upon him some day. He was young—young!

At the Knowles house he turned in and, mounting the veranda casually, sat down beside Judith in the porch swing.

"So," she said, "the great man condescends to call?"

"All of that," agreed Stuart. "Aye, all of that." He reached for a bonbon and bit it in half. "Not so good," he announced, and put the other half between her parted teeth.

"Say," he said. "How about the Senior Ball? I'm staying over for it on purpose to take you, and I won't take no for an answer. Good—that's settled." And he took another bonbon. Its contents evidently pleased him, for he ate that one himself.

THE SOUND INVESTMENT

(Continued from Page 19)

turntable. Both were started together, and there you were! It was all quite interesting to the movie people, but what of it? The theaters were not equipped to show this stuff.

The company at the same time was experimenting with sound on film. In this process the picture is reduced on one side by a narrow sound track which runs continuously between the picture and the sprocket holes. Pictures which have the sound on the film may be distinguished from those played with records by the fact that the former picture, when thrown on the screen, is almost square. Other companies and individuals also were doing things with the same sort of plan in mind.

In the film process the sound is turned into light, which registers, through a very tiny slit, on the film. The light varies in volume with the sound, and a strip of sound film, closely examined, will show tiny cross streaks of varying density. When this is run through a properly equipped projection machine the sound track on the positive print lets through the same amount of light that was recorded on the negative. This is turned back into sound and the show is under way. One process varies this by registering on the sound track tiny black mountain ranges lying horizontally against a white sky. The effect is the same. Instead of regulating the amount of light by different shades of gray, this method increases the light by recording a little peak against the sky and lowers it by introducing Mt. McKinley to shut off the sun.

Buying From Competitors

The latter process is Photophone, used by the Radio Corporation of America. The gray sound track is used by Electrical Research Products, which is part of the Western Electric Company, and this is known as Movietone. The record process is Vitaphone, which is a trade mark. The Vitaphone method, without the label, is used by many different companies.

The Warner Brothers, a little more than two years ago, decided to bet their last dime on the disk method. William Fox, who had made a great deal of money with a Western star whose pictures seldom played the de luxe theaters, began experimenting

with the film method, with a talking news reel in mind. Means were devised for carrying the latter form of recording apparatus on a motortruck. Disk recorders are yet not portable.

It was these two companies—at no time in their previous histories rated among the Big Three—that were to see their small wagers pyramid into millions and their prestige grow until they became a Big Two. They were to attain such power in motion pictures that they were to see great theater chains, owned by rival producers, forced by public demand to present talking pictures produced by these two companies, while silent pictures made by the owners of these theaters were relegated to less important houses.

They were to see, however, no great loss in gross revenue by theater-owning producers of silent pictures. These theaters were to make so much money in showing talking pictures from rival studios that they would absorb the losses on their own productions. Such was the curious chain of events in an industry gone berserk.

At the Motion Picture Club, on Broadway, which is the clearing house for news and gossip about the business, it is generally agreed that Al Jolson's picture, The Jazz Singer, was the turning point for sound pictures.

If this one had failed, Warner Brothers probably would have given up and sound would have been heard no longer. And The Jazz Singer narrowly missed being unheard.

Another actor was to play the lead, but there was a disagreement and the Warner Brothers found themselves with a good story, but with no one who could sing who fitted the part. It had been a play that was said to have been based upon Jolson's life and was his favorite drama, but nobody thought of asking him to do it, since he had tried motion pictures once and did not like them

A meeting on a golf course brought Jolson and the Warners together. To their amazement, he said he thought he would like to try it. They admitted that they didn't have enough money to pay him what they thought he would demand, but the story was his story and he said, "I'll go out to Hollywood and see what comes of it."

There are tales to the effect that during the making of the picture the Warners were so low in funds that Jolson did not draw all of his salary until weeks later. Some say that he even loaned them money to pay the other actors. So interested was he in the production that he was determined that it should be finished if he had to pay for it himself.

Guiding the destinies of the firm of four brothers in Hollywood, the optimist of the quartet, the one who always saw success just around the corner, was Sam Warner. With his brother Jack and with the enthusiastic Jolson, they fought their way through, borrowing, skimping, economizing until the finished print was shipped with the records to New York.

"It's Sam's picture," they said on the lot in Hollywood.

When Talkies Were Made

The Jazz Singer opened in New York, and at eleven o'clock that night the leaders of the motion-picture industry, who stood cheering in the theater, knew that their business had been turned upside down. All the leaders were there. But the brothers, who were destined within a few months to be hailed as the great geniuses of the industry, were absent. The day before, Sam Warner, who had done most to bring about this revolution, had died.

At that time only a few score of theaters, scattered through the country, were wired—as they say in the picture business. Already, however, the talking news reel had met with sufficient success to cause theater owners to begin to wonder whether they hadn't better get in on this new thing. After The Jazz Singer they wondered no longer.

The only company that manufactured sound equipment found itself totally unprepared for the rush of customers. It lacked machinery for quantity production, it lacked trained men to make and install the apparatus. It was in no position to fill orders from producers who wanted to make sound pictures, or from theaters that wanted to exhibit them. Slowly, gradually gathering momentum, it groaned out the machines while the motion-picture industry, except for two companies, fussed and



—all the beauty and simplicity demanded by modern motor car design, plus the practical advantages that have built Monogram success in the past—self-locking, easy-filling, watertight, always in alignment.

Protect Your Engine Simply flip open the hinged lid of the Monogram Cap — no unscrewing necessary. This ease of operation encourages frequent inspection of the water level—makes filling quick and easy—protects your engine and radiator.

Self-locking, prevents theft • • Like all previous Monogram Caps, these new caps automatically lock in place, preventing theft and loss.

Watertight, leak-proof construction - The Monogram is leak-proof, due to its hinge-lid and latch design and special construction.

Always on straight - Monogram Caps are always on straight. Nothing to unscrew when filling the radiator, therefore nothing to get out of order.

Monogram Caps may be used on new or old cars, with or without temperature indicators or ornaments. Your dealer can supply you, and he will gladly show you the caps designed for your car.

COMPANY, 625 West Jackson



Sleepless Nights

How to End Them Without Drugs

-ALL DAY ENERGY TOMORROW



Over 20,000 doctors endorse this natural way to healthful sleep—Because Ovaltine is not a drug but a unique food-drink; that brings instant all night sleep and builds up tremendous energy for the next day.

Accept 3-Day Test—Not a Medicine; A Swiss Discovery Millions are Using

Here is instant sleep, when you go to bed ... sleep without drugs. A way, at last, of inducing sleep that any doctor you ask will approve.

A way that makes a new person of you tomorrow. For it does far more than merely bring you sleep. It rebuilds your wasted tissues while you sleep.

It's as free of drugs as the bread you eat or the milk you drink; as non-habit forming as warm milk. Thus it makes the use of drugs or soporifics a grave folly (unless under medical direction). People are flocking to its use.

Not A Medicine

It is called Ovaltine. A delicious fooddrink. The discovery of a world-noted Swiss scientist. You take it at bedtime. And soon you fall asleep.

Next morning you wake up feeling like a new person. For the peculiar dietetic property of Ovaltine re-supplies your system during the night with the energy lost the previous, active day. Builds you up and rejuvenates you.

Over 20,000 doctors are advising it. Its use has spread over some 50 different nations. New to America, it has been used over 30 years in Europe.

Acts This Way

Ovaltine acts on entirely different principles from sleep producing drugs.

Remember, it's not a medicine. It contains no drugs. It's a food.

Thus, you can take it night after night and not only avoid a habit, as with drugs, but build up your health as well.

Instead of drugging your nerves to sleep, it acts to soothe you to sleep. For it corrects the digestive unrest to which most sleeplessness now is traced.

Ovaltine marks one of the most important scientific findings of its time. And must not be confused with "Malt" or "Chocolate" preparations which may claim the same effects or taste like it. It is widely different in formula and result.

Doctors advise it not only for sleeplessness, but for nerve-strain, malnutrition, general run down conditions, for nervous children, for nursing mothers, and the aged. Thousands take it to relieve fatigue during the day.

Accept 3-Day Test

Please accept the 3-day test below. Note how quickly sleep comes. Mark

how great your next day's energy. Mark the difference in your whole appearance.

Mail the coupon. Or obtain in regular size package at drug or grocery store. Also served at soda fountains.

fumed, watching the pot and waiting for the water to boil.

A sound stage, equipped, cost \$500,000, but you couldn't get immediate delivery at any price. Reproducing apparatus, installed in a theater, cost from \$10,000 to \$20,000, depending upon the size of the theater and the amount of amplification necessary. Theater owners would gladly have paid twice the amount, since the cost was even less than a cooling system. Experience showed that increased business and reduction in music expense made the first cost immaterial.

A minor executive in one of the greattheater chains found himself the sole executive in the company who believed firmly in the future of sound. So enthusiastic and so sure of himself was he that upon his own responsibility, when his superior was away, he put in an order for seventy-five installations at a total cost of \$1,200,000.

When the boss returned he found the agreement, signed, sealed and delivered, on his desk.

This was a chain of theaters owned by a producing company that had no sound pictures. To use the \$1,200,000 worth of equipment, the organization would have to throw out some of its own pictures and play those of rival concerns. There was still a chance for the company to get out of it, but fortunately for the stockholders, it didn't.

"All right," said the boss; "but, kid, if this thing doesn't work out I'll take it out of your hide if I have to chase you to China."

It did work out. The company got its order in early, and instead of being chased to China, the rash executive now has a corner office with a Chinese rug on the floor, and his salary has been increased \$10,000 a year—which is about one-tenth of what the sound equipment brings in extra business to the chain every day.

Mr. O'Hara From Stockholm

Sound equipment of any kind had a market, and a company produced a nonsynchronous instrument which played phonograph records and which worked very well in theaters that could not afford large orchestras. This device was like two phonographs built into one. There were two turntables and a lever that shut off the sound on one record as it turned on the other. The machine was connected to amplifiers behind the screen. A stock of several hundred records was furnished and pictures were cued for the records. An operator sat at the machine and, say, put on one turntable a jazz number, which was the proper music for the opening. On the other he placed Hearts and Flowers. As the wild party in the cabaret ended and the deserted wife was shown starving with her child in a hovel, the operator threw over the lever and the jazz record was silenced and the other music began. If the next cue called for martial music, he took off the jazz and put Over There in its place, and at the proper time turned it on.

This machine, and a dozen or more imitations, are proving quite satisfactory in the smaller theaters, which in this manner give really fine musical accompaniments to silent pictures. Many wired theaters that have abandoned their orchestras use it with such silent pictures as they may play.

A theater owner in the Bronx section of New York City solved his talking-picture problem by installing amplifiers back of the screen and by running his wires to a microphone. His was a combination housevaudeville and pictures-and his contracts with vaudeville actors provided that they also must work in talking pictures. He would hold one rehearsal of the picture and leave it to the ingenuity of the performers to make up lines for the motion-picture actors to speak. It took some care in booking, but he worked it out, and whenever he had a picture that called for German dialect he would book a German vaudeville act. Once he had a picture that required Irish dialect, and he booked a pair of acrobats

called O'Hooligan and O'Hara and thought everything would work out all right, but they turned out to be Scandinavians. They did their best, however, and the audience seemed to be satisfied.

The small towns read about talking pictures and wanted to hear them. One man managed to supply the demand. He picked out an hour's program of the best commercial singing and talking phonograph records and had them delivered, with a talking machine, to a small motion-picture studio. He ran the records over and over until he knew all the words by heart, put on his dress suit and started to make his talking pictures.

He stood in front of the motion-picture camera. At the word "Go!" an assistant started the phonograph record and the cameraman began shooting. As the song began, our hero repeated the words just as they were being sung on the phonograph.

Unraveling Legal Tangles

By marking a starting spot on the record and a starting frame on the film, he had a picture of a man singing that synchronized with the record, provided the machines didn't get out of step. A dozen or more records were made in this manner, including a black-face dialogue act in which he was assisted by an electrician who blacked up and did his half of the job for ten dollars.

The show went out into the backwoods and played on percentage in the smaller theaters and was a great success. He received many enthusiastic compliments on his singing, which at various times was likened to John McCormack's and Gene Austin's. He operated the talking machine backstage and became quite expert at keeping the sound in synchronization with the picture, and to this day the folks in those towns think they heard real talking pictures.

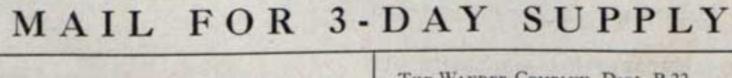
In the early autumn of last year the water began to boil and the picture business became less tense. More than 1000 theaters had been equipped with sound devices, every producer had his sound studios in operation, and the company that was leading in the manufacture of apparatus had a competitor. A score of small firms rushed into the market with sound machines. Now everybody is turning out talking pictures.

Throughout every motion-picture organization sound changed the manner of operation. In the sales departments there was the question as to how much should be charged for the right to use the sound and for the records themselves, when this form of reproduction was used. The average theater wears out three or four sets of records a week, but they cost no more than ordinary phonograph disks and there is some salvage on the old ones, so this expense is immaterial. In most cases the theaters pay from \$100 to \$500 a week extra as a sound fee and play the pictures on percentage. The theater that does an average business of \$20,000 will perhaps pay \$4000 and split on various percentages the gross over \$20,000. No figures on film rental can be accurate, since there is no set price for motion pictures. It is a game of barter, and the theater pays as little as possible and the distributor gets as much as he can.

In the legal departments there was terrific confusion. Contracts for plays already bought gave the producer the right to make a motion picture from the plays, but nowhere did they give him the right to use the dialogue. Contracts for musical-comedy stories provided that the music could be played in the theater, but did not give the producer the right to record it. Authors quickly grasped the situation and signed releases of dialogue rights only upon the payment of more money.

The music situation was tangled up. American rights were rather clear, but it was found at times that, in order to clear three or four bars of music for the world, it

(Continued on Page 132)



OVALTINE



Make this experiment. Drink a cup of hot Ovaltine before retiring, for three nights. Note how quickly you go to sleep; how refreshed you feel when you awaken; your unlimited energy next day. Mail coupon, with 10c, for a 3-day introductory package.

OVALTINE

BUILDS BODY, BRAIN AND NERVES

THE WANDER COMPANY, Dept. P-22
180 N. Michigan Ave., Chicago, Ill.

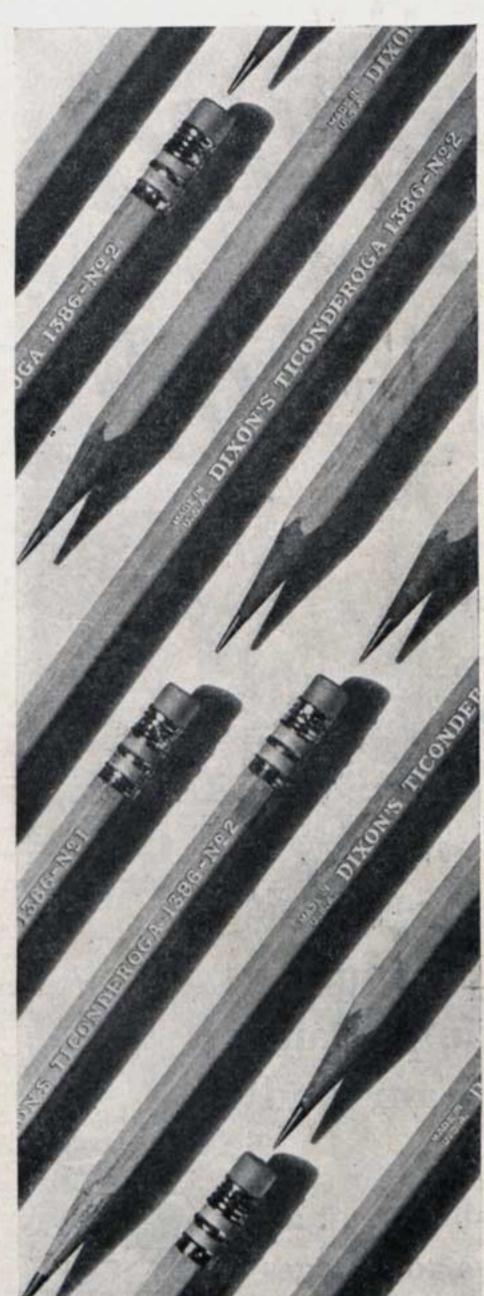
I enclose 10c to cover cost of packing and mailing.
Send me your 3-day package of Ovaltine.
(Print name and address clearly.)

Name

City

(One package to a person)





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would be necessary to make contracts with a dozen different organizations scattered throughout two hemispheres. This situation is not yet serious, since only a few foreign theaters are wired. The musical conductor of one company used in a score a tune that happened not to be clear for the United States, and after the records were made and the picture was released the owner of the copyright demanded and received \$10,000 for a clearance.

Most theaters have had trouble in adjusting the quantity of their sound. The largest ones amplify their amplifiers with horns—such as are used to carry the voices of speakers in large banquet halls—which are placed above the proscenium arch to carry the sound to the back rows in the top balcony.

Until they learned by experience, at times they had the sound too loud, at times too soft. One theater manager received many complaints from his patrons that the sound was too loud; although to him it seemed perfect. It finally turned out that he was slightly deaf and was unaware of the fact, so now he lets his head usher push the buzzer that tells the operator whether to raise or lower the volume.

Every sound studio these days is crowded with experts who still are not sure what it is all about. Just as an orchestra was in the midst of recording a score for a picture, a cricket started chirping in the organ. All work was stopped and a force earning \$5000 a day was held up while means were devised to get the cricket out of the organ. The organ expert decided that the whole thing would have to be taken apart and the cricket chased down and destroyed, since there seemed to be no way to lure him out. The dismantling was under way when a kid entered the studio and said, "Why don't you shoot it full of bug powder?" and to the surprise of the experts the amateur's idea worked.

A Job for Good Mixers

Pictures are made now in tight, soundproof rooms. In the early days they were made out on a lot, and if extraneous sounds crept in, there was nothing to do but make the sequence over again. Much excitement was created in Los Angeles one afternoon, when policemen made automobiles detour off a boulevard so as to keep their honking horns out of a picture that was being recorded on an open stage. In those days airplane scouts were part of the pay roll. Many airplanes pass over Hollywood, and the airplane scout's duty was to watch for them and to signal the director to go ahead with a sound sequence only after the sky was checked up and found to be silent.

One of the most important experts is the man at the mixer panel. With dialssomething like a volume regulator on a radio-he regulates the amount of sound that shall be recorded. Before the recording starts, microphones are hung above the spots where the actors are to stop to deliver their lines, or hidden behind furniture or flowers. The mixer controls a regulator for each of these microphones. In the disk method he must be particularly careful not to let in too much of sudden explosions. A terrific bang will cause the needle to jump out of its groove on a record while it is being played in a theater, which will cause the audience to hear inappropriate noises until the operator shuts off the sound. Under such circumstances the remainder of that reel is played silent.

Certain noises record with intense enthusiasm. A slap on the back, a knock on a door, swishing of silk, clapping of hands—all

must be reduced on the mixer panel. Voices must be tested and the mixer man must know which voices shall be allowed to slip freely into the wax and which must be held down.

Hollywood's voice problem is not a serious one. It seems to be possible for an actor, by careful training, to develop an adequate speaking voice. One woman star had an irritatingly squeaky tone in her first talking picture, but in her later pictures her voice is as pleasant as anybody could wish.

The foreign actor in Hollywood who does not speak good English just won't be allowed to talk, although one producer is trying an experiment which may work out. He has cast his foreign actress in a part of a foreigner just arrived in the United States and who speaks very little English. Perhaps it will come out all right.

Better Than the Real Thing

With the intense demand for realism in motion pictures now, the producers find themselves in other difficulties. On the stage, for instance, a play may be laid in a foreign land, but the actors speak to one another in English and nobody complains. But one motion-picture critic has complained of lack of realism in a scene which was taken from a play and which, as such, was never questioned. The unrealistic scene is one in which a French peasant speaks to a German. In the picture, as in the play, both talk in perfect English. What can be done in situations like that?

The problem of distribution of American talking pictures in non-English-speaking countries is one that has not been met. No producer has started worrying yet, since few theaters are equipped abroad, and anyway, he's making enough money out of exclusively domestic distribution. One company has gone so far as to make a two-reel comedy in German, but it is risking nothing, since the picture is being released in the United States and is funny enough, whether the audience understands German or not.

One piece of luck has come to the effect men. Provided the volume is right, they find that exact imitation of noises is not necessary. The eye registers a revolver shot, for instance, and almost any sort of noise, from a bang to a plop, will make the spectator believe he has heard a shot. In recording music and effects for an airplane picture a company took great care to produce the exact and widely different sounds of a British plane, a German pursuit plane and a German bomber. One hummed, one was tenor and one was barytone. In an effort to learn whether it was worth while to be accurate, persons were questioned after they had seen the picture. Out of more than 100 who were questioned, only eleven had noticed any difference in the sounds, and six of those were aviators.

These aviators had high praise for the reproduction of the sounds of machine-gun fire which had been made by means of a whirling cogwheel and a barrel stave, after it was found that actual machine-gun fire was so rapid that it did not give the proper staccato effect.

What's going to come out of all this anyway? Sound has put new life into an amusement industry that was beginning to go a bit stale. Until talking pictures came along the gross receipts of motion-picture companies were falling off and there was uneasiness and a feeling that there were too many large and expensive theaters. In an effort to stimulate business the big houses were staging elaborate vaudeville and musical-comedy performances, and in

many cases the picture was a minor feature of the program. Sound changed all this.

Within a year the theaters and the producers have put a total of \$30,000,000 into sound equipment, experiments and preparation, all paid for out of increased box-office revenue. One manufacturing company sold more than \$20,000,000 worth of sound apparatus to theaters and producers in the year just ended, and expects to double its output in 1929.

Producers of consequence are sounding the feature pictures on their schedules for the year, and few will be the comedies and other short subjects that have not at least a musical accompaniment. By the end of this year, if present plans are carried out, there will be 3500 wired theaters in the United States and Canada, and at least 600 abroad.

The silent theater has been almost forgotten in the rush. About 14,000 theaters in the United States cannot play sound pictures, but for them the producer makes a silent version. There was a time when the small theaters gave the producer the greater percentage of his gross, but now bookings in 500 wired theaters may turn in \$1,000,000 in revenue. In the old days pictures that brought \$1,000,000 from the whole world were rare.

But a discordant note is entering. A great many persons do not like talking pictures. At first they rushed pell-mell to see what it was all about. Now the theater owners are beginning to feel a reaction, and some of the smaller theaters, which had no equipment and which saw bankruptcy on the way, are cheerfully advertising Without Sound.

Looking for a Change of Heart

The talkers, however, still continue to play to big business, and the only answer seems to be that the people who do like sound pictures now go more often than formerly.

Most of the complaint seems to be directed toward the dialogue pictures, long and short. It is significant that the most successful sound pictures have been those which had singing as their most important feature, and there is no feeling in any part of the motion-picture audience against those that contain only music and effects.

The president of one important company has predicted from the beginning that the talking picture was only a skyrocket, and to date his company has released no productions that contained actual talking. Yet one of his leading stars is now taking voice training; farsighted, in case her boss happens to be wrong.

Variety, the supreme court of the show business, believes that public opinion for and against looks like 50-50, and feels that there is going to be plenty of profit in silent theaters, and that the sound pictures will not continue to draw their tremendous grosses.

The quality of the shows, in the end, will solve the problem. Improvements in sound pictures are rapidly being made. Probably a new dramatic technic will be developed. Even now the producers realize that a show cannot be a success merely because it contains talking, and are beginning to suspect that there are some pictures that might be even better if the dialogue were omitted.

One of the pioneer sound producers has a picture that cost nearly \$2,000,000 that was first made as a silent picture. Experiments for introducing dialogue into the production were made, and finally—with the present attitude of the public in mind—dialogue was abandoned and the picture will be released with elaborate musical-score and sound effects only.

