

Sitting Ducks

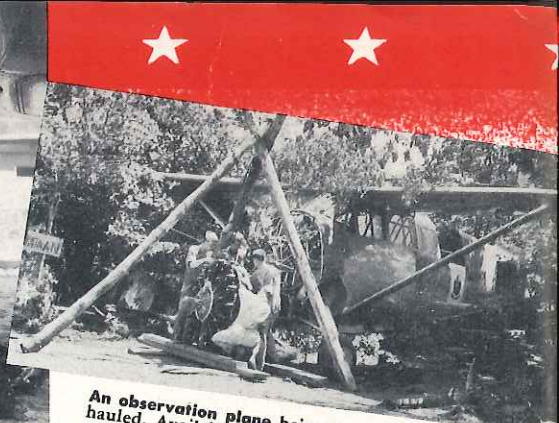




An ordinary automobile jack is used to support the wing of a P-39 in makeshift fashion on Guadalcanal while crew works on landing gear. Airplane wing jacks needed badly. (Official photo U. S. Air Forces)

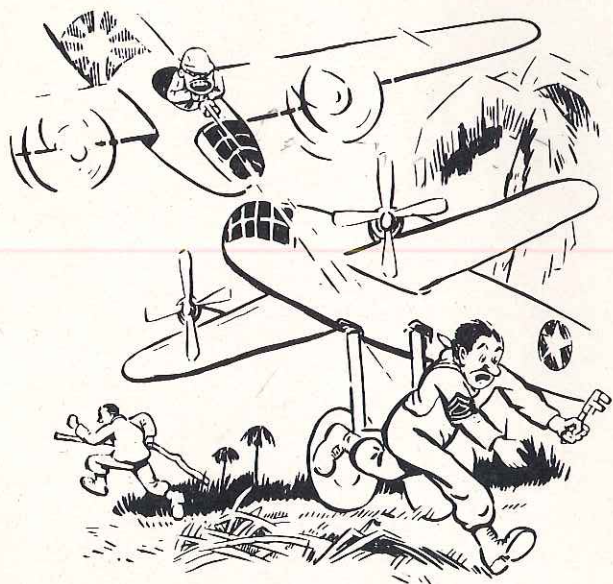


A scene from "Air Forces," a Warner Bros.-First National film depicting the struggles of the Army Air Corps during the Jap invasion of the Philippines. Crew uses crude pole pry in lieu of airplane wheel jack. (Warner Bros. photo)



An observation plane being completely overhauled. Available equipment is a small kit of tools, rope and makeshift tripod. Airplane jacks weren't available then. (Acme photo)

WITHOUT JACKS, THEY WERE "Sitting Ducks"

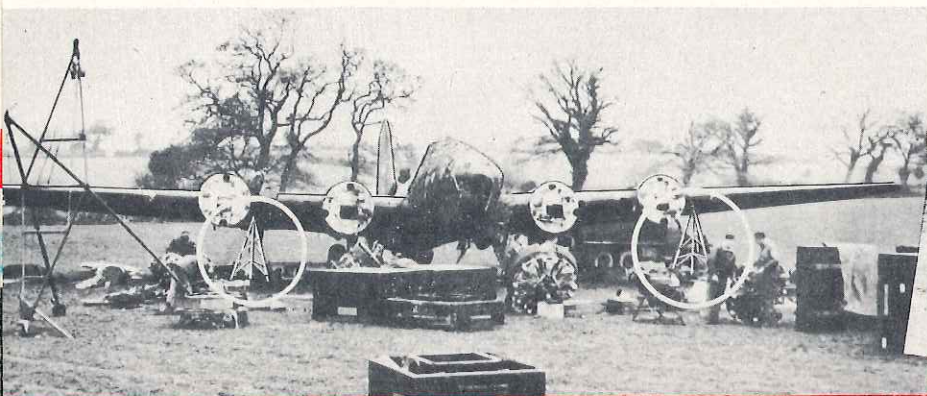


The Flying Fortress "Werewolf," with only one of its four engines running, landed in an English meadow. Joyce wing jacks and portable hoisting equipment were brought in, emergency repairs made, and the plane flown away under its own power. (Press Assn. photo)

Came December 7th, 1941, and the almost hysterical radio reports of the sneak attack on Pearl Harbor. How few of us then realized that for many months to follow America's Air Forces would be struggling desperately with improvised equipment in strange lands and amid tropical jungles to keep their precious airplanes flying! Many times our airmen were grounded like sitting ducks for the enemy to pot-shot.

Have you ever been without a jack and tried to change a tire on your car far away from a good old service station? Multiply your helpless feeling a dozen times and you will have some conception of the problems that faced our flying men first in the Pacific islands and later in the Caribbean and in Africa.

The fact is, no universal jacks had ever been designed and built especially for the Air Forces. Lacking airplane jacks and other ground maintenance equipment, our airmen just couldn't "keep 'em flying."



A B-24 Liberator bomber is being completely overhauled on a foreign shore. Up-to-date Joyce wing jacks are shown supporting wings and nose. (Press Assn. photo)

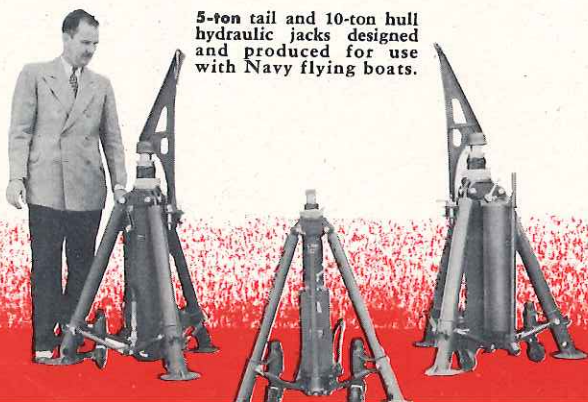
"GIVE US *Airplane* JACKS"



Four miles from the Joyce plant is Wright Field, the Research and Engineering center of the Materiel Command of the Army Air Forces. What could be more natural than that engineers from Wright Field should come to Joyce for the answer to the cry from the Pacific: "Give us airplane jacks!"

Because of the foresight of the AAF, the first contact with Joyce was made as early as the summer of 1941, several months before Pearl Harbor. But the prospects of a world conflict were so certain that Joyce whole-heartedly cooperated with Wright Field and assigned virtually all of its engineering and experimental staff to the Army's development program.

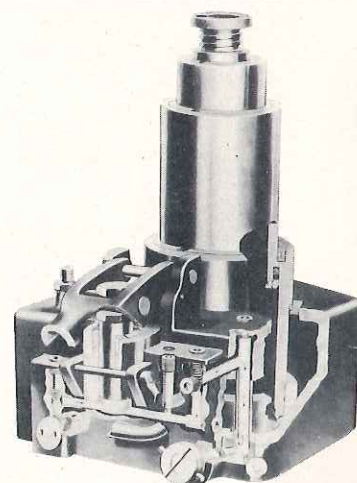
By January, 1942, the first designs of the official Wing Jack had been completed and models were being tested. Joyce designs were finally approved as official standard for all the air services and immediately placed in production. Next came designs for Wheel or Axle Jacks—now in production.



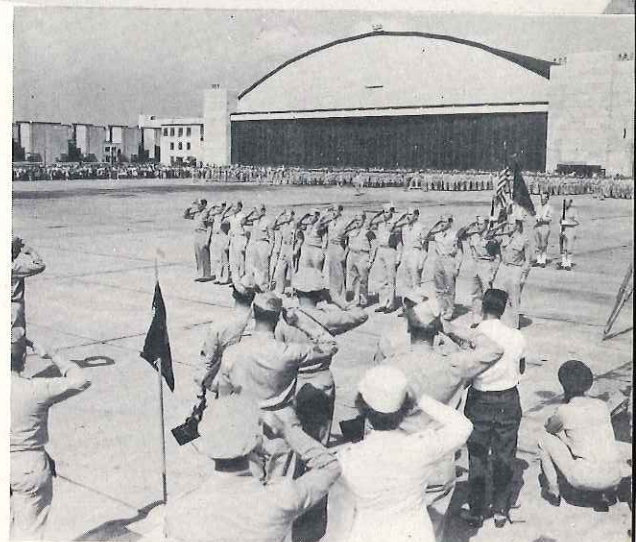
5-ton tail and 10-ton hull hydraulic jacks designed and produced for use with Navy flying boats.



The Official 20-ton AAF hydraulic airplane wing jack extended to its full closed height of 144".



The 10-ton hydraulic axle jack designed for servicing wheels, tires, brakes and landing gear of U. S. Army and Navy planes.



The modern Joyce factory above and a scene at Wright Field, Dayton, Ohio, where the first official U. S. Army airplane jacks were conceived and built. (AAF Materiel Command photo)



A railroad yard in German-occupied France after an American air raid. American soldiers needed and got Joyce jacks to help clear it up. (Signal Corps photo)

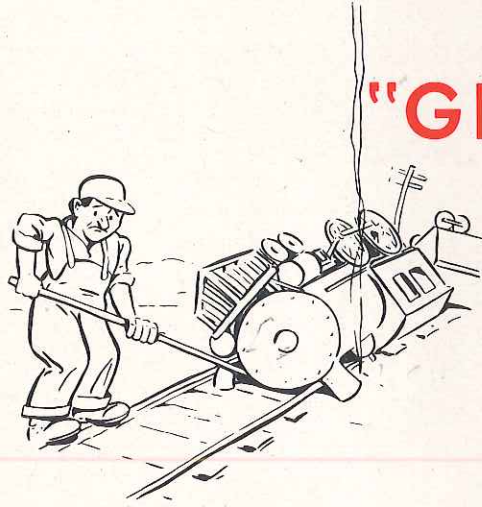


More trouble ahead for U. S. Army Engineers. A French locomotive blocks military traffic near Apres. (Signal Corps photo)



A street in Leghorn, Italy, after the

"GIVE US *Railroad* JACKS"



America's railroads have done a phenomenal job. Suddenly War came and an abnormal amount of emergency freight and millions of military personnel were required to be transported across this wide continent. America was like a huge ball bursting with the intensity of its war effort and the railroads were the seams. That they met the crisis promptly and adequately is a record that has evoked universal acclamation.

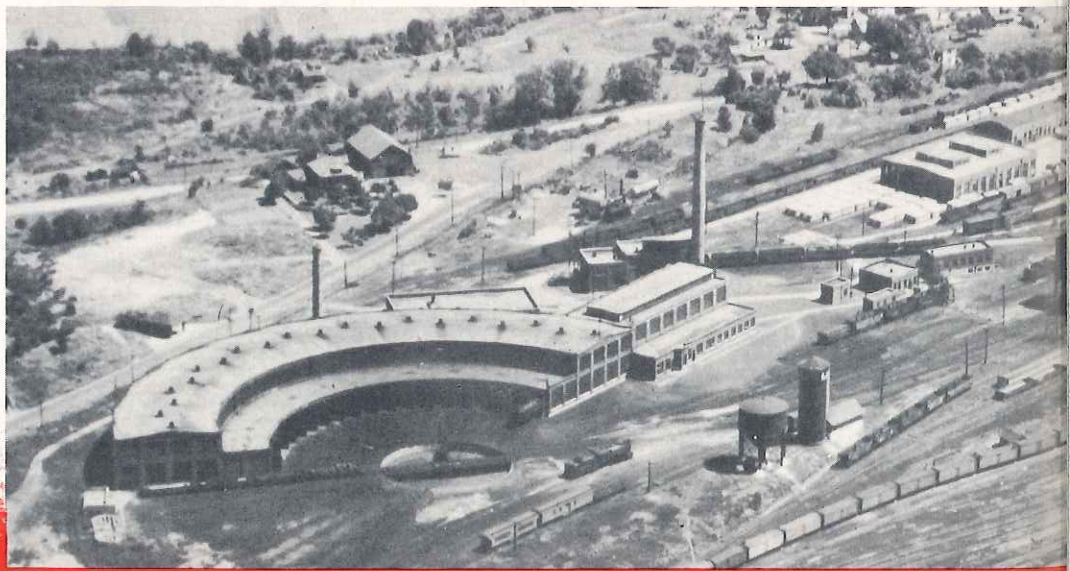
Yet American railroads have much to be thankful for. Suppose trains had been blown up, like the one above or busy freight yards, like the one below, had been bombed. Then our transportation systems would have known, just as our Air Forces learned in the early days of the War, what it means to carry on with crude, makeshift repair and maintenance equipment.

But fortunately for us all the railroads had modern roundhouses in which to repair their locomotives and modern jacks to help them do the work . . . not enough of them, it is true, but nevertheless important aids for round-the-clock operations.

The Joyce No. 1799-R Air Jack with rotary motor, popular with railroads everywhere. Joyce originated and pioneered air motor power jacks for the railroads and others.



A busy American railroad yard and roundhouse in its peaceful suburban s

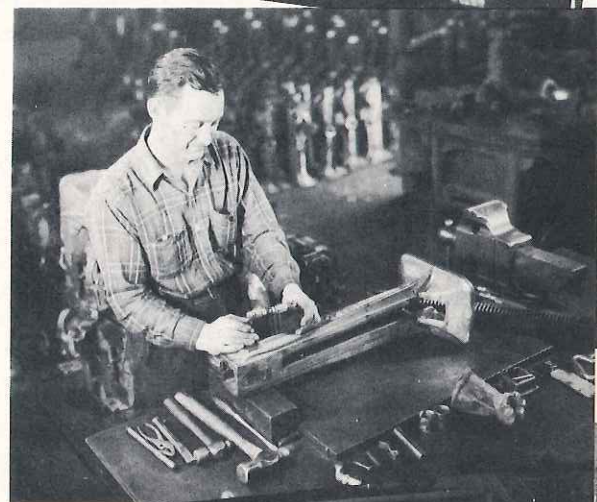




Germans left. (Signal Corps photo)



Four views of Joyce production: (1) The Engineering Department. (2) Precision grinding on ball bearing plate for 100-ton jack. (3) Final assembly of 15-ton automatic lowering jack for U. S. Engineers. (4) Final test under actual load conditions.



"GIVE US *Joyce* JACKS!"

If this were a diary of Joyce's activities during the War it would have frequent reference to the tribulations of *those days* . . . priorities . . . material shortages . . . scarcity of machine tools . . . delayed shipments . . . broken promises . . . manpower losses, etc. You know them. Joyce had all of these problems to face . . . just as you did.

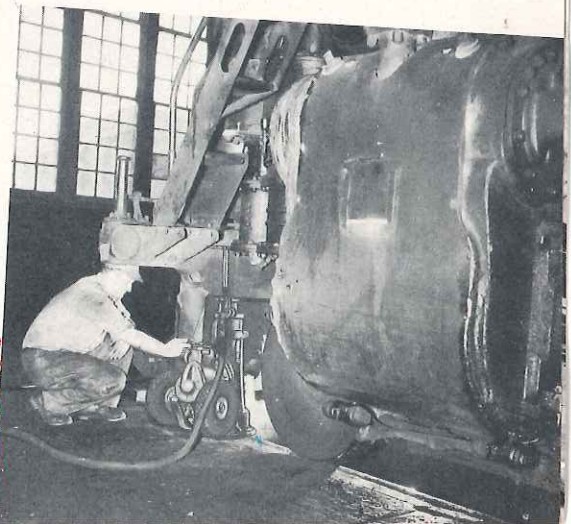
In an effort to meet the situation and streamline production, Joyce brought out in 1942 its Victory line of Jacks. In it were featured only the most popular standard models of approved design needed in all phases of the war effort. All others were discontinued.

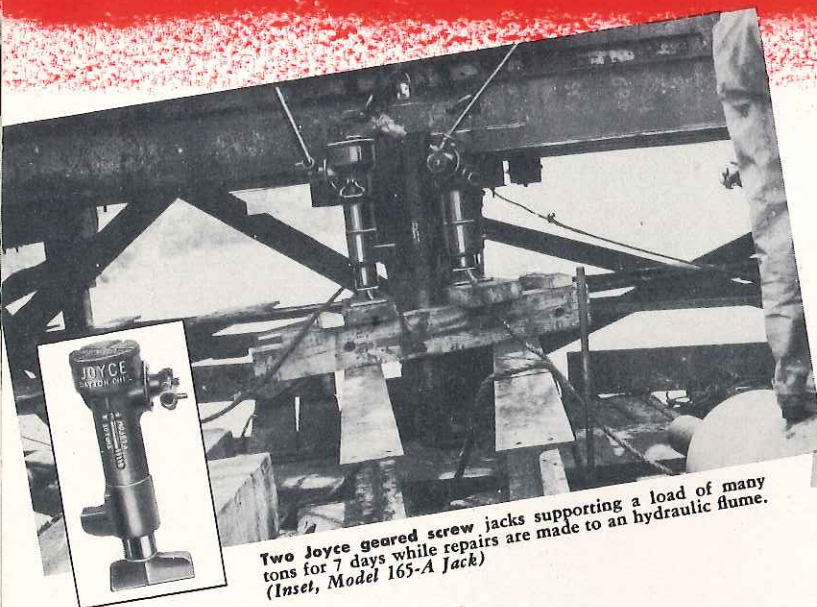
This enabled us to concentrate on fewer models and expedite production and delivery. Yet in spite of our best efforts, orders overbalanced expansion facilities. Added to this, loyal customers were often unable to furnish the necessary priorities or were late in placing their orders, so many were disappointed when shipments could not be made promptly.

ting. (Mayfield Aerial Photos)

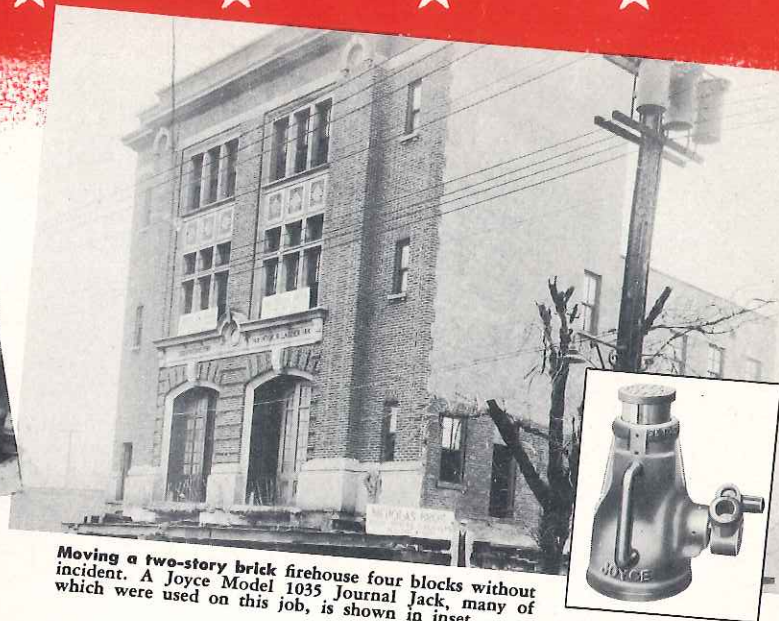


A Joyce Air Motor Power Jack swings into action in a locomotive roundhouse. (Courtesy New York Central System)





Two Joyce geared screw jacks supporting a load of many tons for 7 days while repairs are made to a hydraulic flume. (Inset, Model 165-A Jack)



Moving a two-story brick firehouse four blocks without incident. A Joyce Model 1035 Journal Jack, many of which were used on this job, is shown in inset.

"GIVE US *Jacks* . . . JACKS . . . JACKS



Joyce Jacks have had an unpublicized part in helping to carry out many necessary War activities. There were bridges to build and repair . . . and Joyce Jacks helped do it. Buildings and homes had to be moved to provide for new highways, airports and army camps. Coal had to be mined in record-breaking tonnage. Buses and trucks, shuttling back and forth with military personnel, war workers and rush freight, had to be serviced daily to keep them going. Public utilities were called upon for quick extensions to 'phone and power lines. Army bases sprang up overnight with spectacular demands for service equipment.

Then there were many thousands of Joyce Jacks that had to be rushed across two oceans to help in constructing Army and Navy bases and depots; to clean up and rebuild bombed cities and military installations. Yes, it seemed as if all the world wanted Joyce Jacks, and wanted them right away!

A Joyce No. 77 pole-pulling jack in use by public utilities company resetting poles. Also used by Signal Corps.



A Joyce Push-Pull Jack Model 53-A is shown in an unusual application. This huge armature is being placed in position, the jack being used to balance and level the load. Ordinarily hazardous job done safely. (Courtesy Muth Bros.—Movers).



A jeep being serviced at an Eastern Army Base while supported on Joyce axle stands. Peace time item now a war help. (Signal Corps photo)





Deep in the underground darkness of a coal mine, timbering jacks support the ceiling while miners cut away safely below with Joyce jacks used for leveling their cutting machines. (Inset, Model 67-A Trip Jack)



To clear the right-of-way for a new highway, a large two-story frame building is moved to a new location on Joyce locomotive screw jacks, one of which is shown in inset. (Courtesy Muth Bros., Movers)



and MORE JACKS!"

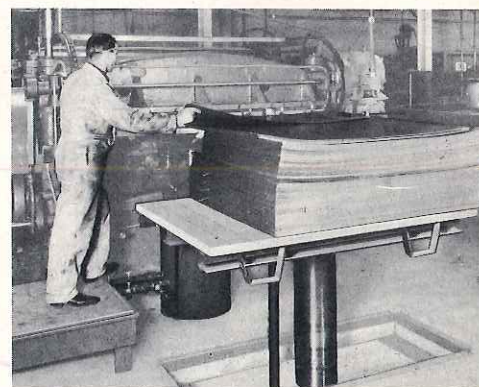
What did we do to meet this overwhelming situation? We did the natural thing. Besides concentrating production on fewer models, we added new tools and equipment as fast as they were procurable. We went on long hours and a three-shift schedule.

We hired women and older men and instituted training classes to meet the loss of experienced employees who went into the armed services. We phoned and wired and traced and traveled to get priorities, and operated a motor shuttle service to speed up deliveries, expedite shipments and keep materials flowing in and Jacks flowing out.

To keep pace with the demands of our regular customers would have been a task of magnitude, but added to this were the top priority requirements of government agencies and the Army and Navy. Is it any wonder then that some of our best friends and customers had to "queue up" and wait their turn?



A New York suburban bus being serviced on a Joyce two-post hydraulic lift, No. 210 BJRE.



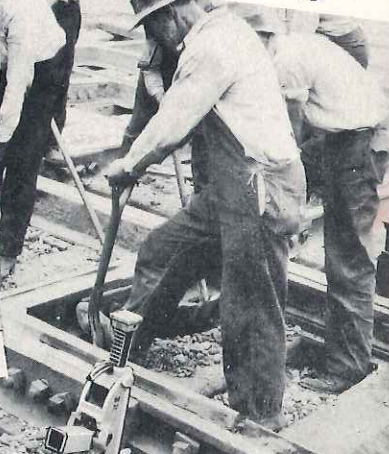
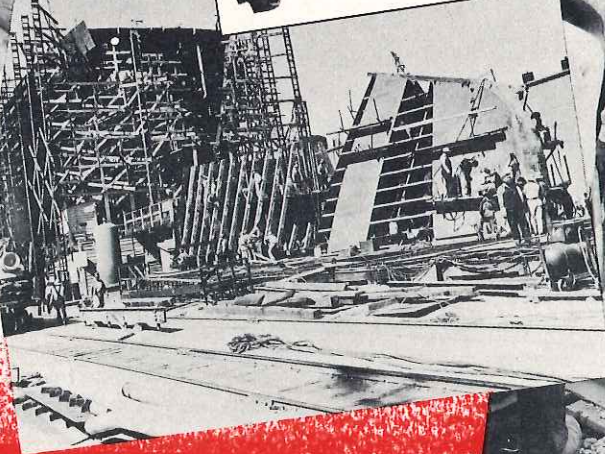
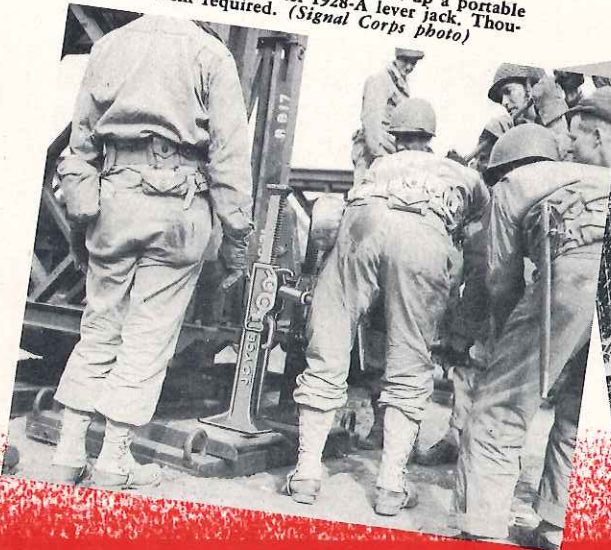
Sheets of fibre board being fed to a forming press by means of a Joyce Hydraulic Materialift. Only one man is needed where two were formerly required, and work is easier.

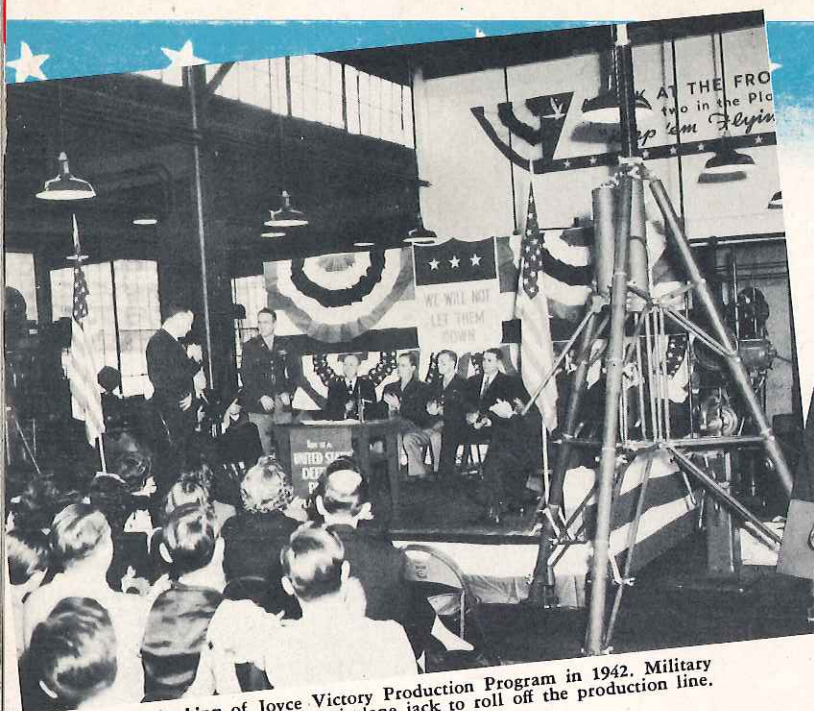
U. S. Army Engineers in England jack up a portable bridge with a Joyce Model 1928-A lever jack. Thousands of them required. (Signal Corps photo)

Steel hull plates are being held in position for welding in a Liberty shipyard by means of Joyce No. 54 pulling jacks.



Keeping the railroads running. Ballasting a track crossing with a Joyce No. 791 track jack. Also used for surfacing.





Launching of Joyce Victory Production Program in 1942. Military personnel unveil first airplane jack to roll off the production line.



President J. M. Switzer previews airplane hull and wing jack for AAF, RAF and USN representatives preliminary to factory Victory Production Program meeting. Thousands now in combat areas.

VICTORY *Production* PROGRAM SYNCHRONIZED



U. S. Army special trailer jacks vital to the war effort designed and produced in large quantities in the early months of the war.

Joyce started its Victory Production Program of the new Airplane Wing Jacks in 1942 with a rousing factory meeting. Participating were personnel of the Army Air Forces, Royal Air Force and Bureau of Aeronautics, U. S. Navy.

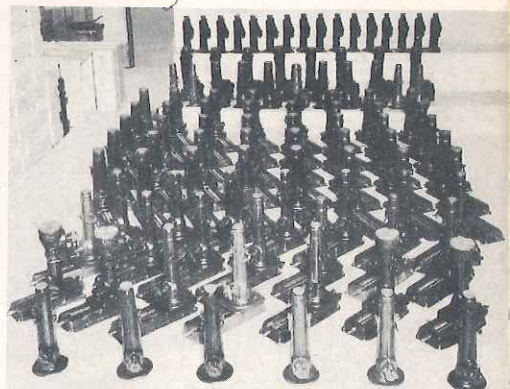
In 1943, America's armed forces went from defensive to offensive tactics, and in 1943 Joyce went from plans and tests and tooling preliminaries to full speed production on equipment for the armed forces. 1944 found our production program on all types of jacks completely synchronized.

1945... and We Are Ready to Serve You

In spite of a disastrous fire that gutted our factory in July, 1944, and which seemed for a time as if it would halt production completely, by ingenious means we carried on production on railroad and industrial jacks as well as on government contracts for Army and Navy Jacks. Now, in 1945, our plant having been completely rebuilt in record time, we are prepared to serve you better than ever before.

New machine tools, new facilities, a larger plant, a well-trained organization built around the key men of our production personnel; all are working overtime to give you the Jacks and Lifts you need for the War and for your postwar plans.

Call on Joyce with confidence . . . we are ready to help with intelligent, sympathetic cooperation.



U. S. Army, Service Forces, Supply Division, required large numbers of Joyce traversing base locomotive jacks for assembling, maintaining and rerailling locomotives in combat and supply areas. Standard locomotive equipment.



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