

HOOVER DAM SURPASSES A WORLD'S BUILDING FEATS

*Writer Describes Terrifying Ride
into Earth's Maw; Tons, Not
Pounds, Unit of Builders*

BY CHESTER G. HANSON

(Drawing by Charles H. Owens, visualizing Hoover Dam construction, will be found in today's rotogravure section.)

Four men and a milk can full of ice water constituted the cargo on the spillway skip at Hoover Dam on a recent Sunday morning.

We were on our way down into the Glory Hole!

It is the pride and boast of the toiling army of engineers and artisans who are building the dam. They say it is the greatest hole ever put down by man without timbering for support. It is a great yawning cavern blasted out of the solid rock, located off to the side and below the dam itself.

to the side and below the dam 10
Eighty feet in diameter means that a six-story office building could stand up in it. And there was not a post or a pillar or a timber of any kind to prop up the roof or to keep the sides from falling in.

Contemplating it from the rim of the giant spillway which empties into this enormous hole in the side of the mountain, it occurred to me that it would make a swell main entrance into the infernal regions.

And so we and the milk can started the trip down, riding on this thing they call a skip—a couple of planks slung in a cable, sliding on a pair of greased four-by-fours propped against the wall of the spillway.

At the mouth of the Glory Hole we transferred to a bigger skip, which was nothing more or less than a big platform on wheels. The Glory Hole pitches down at an angle of about 45 deg. off the horizontal. You ride the skip by perching on a plank along the top edge and bracing your feet against a rail.

To the layman with any imagination the view down into the Stygian blackness ahead is nothing short of terrifying. I had such a case of the jitters that my sock supporter shook down around my ankles.

As the cable let us down, daylight changed to dusk, and dusk to night, with electric lights hanging from the roof.

A momentary pause that seemed very ominous, and we went over a hump in the tracks, as it were, the angle of decline pitching to 50 deg. off the horizontal. Sitting flat on the rough planking, I slid further into my pants like a shipwreck victim in a breeches buoy, and hoped the slivers would hold me back.

Even Charley Owens, the artist, a veteran in tunnels and shafts, I noticed, was clinging on, jaws clamped together and eyes peering straight ahead into the Great Dark Nowhere.

DIN OF WORKERS

Soon the hollow boom of hammering came up from below, along with shouts of men's voices. We could distinguish the outlines of timbering for the concrete forms. We were nearing the bottom where a crew of men was lining the hole with three feet of concrete. The size tapered down to fifty feet.

We came to a stop blocked against a platform of heavy timbers.

And then, with unbelieving eyes we beheld, through the network of timbers the reflection of electric lights on brown muddy water, swiftly moving forty or fifty feet below us.

It was the Colorado River, itself, roaring through the very heart of that mountain of solid rock.

The glory hole, 750 feet down, opens into one of the big diversion tunnels that carries the river around the damsite. The spillway, of which the glory hole is a part, is designed to take unexpected floods that might threaten to overtop the dam, dump them into the tunnels and shoot them on down into the river below the dam.

"Well, how do you like it?" grins Frank T. Crowe, that master mind of construction who is directing the big job for the Six Companies, the contractors on the dam.

We shudder our unqualified approval.

"Here comes a batch of concrete," Crowe shouts.

In a few seconds the great cavern howled with the din of stone, banging and screaming down the metal pipe conveyor. It came at terrific speed, eight tons at a crack. Sparks flew as some of the stones broke loose, hit the metal hopper and ricocheted around like hailstones.

A STUPENDOUS JOB

We watched the carpenters building the forms down there and the concrete men, like gophers in between the forms and the rocky walls, placing and tamping the newly arrived concrete.

A couple thousand years from now, the New Man may come across this glory hole, concrete-lined, deep in the rock and he will wonder how it was done—just as we wonder how they built the pyramids.

We got out of there none too soon

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DAM ASCENDING ON HUGE SCALE

*Spectators Terrified and
Thrilled at Sight*

*Great Machines Handle Tons
Like Feathers*

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for me. Back in the stabbing sunlight. Crowe took us to the top of the canyon wall for a peep down into the canyon where, 1000 feet below, the dam itself is being built. Everything is "down" on this job, it seems.

The first big look over the rim is a breath-taker for the visitors. And they come from the four corners to see it.

Hundreds of workers—there are about 3000 of them on the job now—swarm the canyon floor and can be discerned crawling around on the concrete forms of the dam itself, like so many ants. Toy trucks scurry back and forth over ribbon-like dirt roads, kicking up clouds of dust on ground that only a few months ago and for centuries past underlay the great river. Miniature steam shovels and tractors are scattered here and there in the canyon, along with tool houses, sheds, machinery houses and offices in shacks whose corrugated iron roofs glare in the sunlight pouring down.

The doll-like figures dangling from ropes against the canyon wall over there are the "high scalers"—men who swing 500 feet from the bottom in their safety belts, so that their calloused hands may be free to manipulate the heavy jack hammers. They half sit in wooden saddles, feet braced against the sheer cliff, and gnaw away at the rock, prying off slivers of rock weighing from five to five hundred pounds.

LIKE CITY'S ROAR

The clatter of machinery, laboring trucks, and the machine-gun rattle of the jack hammers—these noises come echoing up from the bottom like the hum and roar from a distant city.

Over this remarkable scene hangs a network of cables, stretched from canyon wall to canyon wall, a thousand feet up. Upon them multi-wheeled carriers race back and forth, and suspended from the carriers are huge buckets. The air is cluttered with swinging buckets. Some coming up, some going down; some racing out, some hurrying back. Like fantastic spiders busily at work.

Down into this scene we went on the government cableway. I got the shakes and shivers again, looking over the edge of the platform we rode on. It was a peep into eternity, as far as I was concerned. But there was nothing to fear, actually. The cable is designed to carry 150 tons. They plan to lift on it a standard freight car loaded with machinery for the power house, swing it off the top of the cliff and lower it to the canyon floor.

Close up, down in the canyon, the structure of the dam itself in its formative stage began to loom up in its true proportions. It was about 140 feet high then. By the middle of this month it will be 170 feet high. Completed, it will be 730 feet above foundation rock. The Los Angeles City Hall tower is 452 feet high.

ICE FOR CONCRETE

Crowe took us through what they call the slot, a passageway being left in the dam to carry the main lines of the refrigerating pipe system which cools the concrete. That's a story in itself. It will be filled in later. We walked through this passageway for about 630 feet between two towering walls of solid concrete before we reached the end. It is 600 feet from Sixth to Seventh streets on Broadway.

Perched on top of the concrete forms atop the structure we sat for an hour watching the fascinating drama of men, stone and steel while Crowe talked. The great buckets bringing concrete swung all around us. Each bucket with its load weighed twenty tons, yet it was spotted up or down or sidewise to within the proverbial hair's breadth, accordingly as the signalman with his telephone directed the cable operator far up on the cliff to spot it.

The whole thing functions like an army organization, directed by foremen, shift bosses and work details of all kinds. An elaborate telephone system, with phone boxes spotted all over the place, moves forward with the job. Surveyors swarm over the place, checking here and there, making notes and preparing for the next move. Government inspectors are on the job day and night to see that everything is done to the satisfaction of Uncle Sam. An elaborate lighting system with flood lights and spotlights turns night into day.

Back of it all are the government forces, dominated by Walker Young the government engineer in charge. He and his staff are housed in the handsome building in Boulder City, with tiled roof and green lawns up on the hill.

MEN IN GOOD SPIRITS

But probably the most satisfying sight of it all is to step into the great mess hall operated by Anderson Brothers and get a close-up of the boys who are building the dam. These are, for the most part, the single men, the married men eating at home in the family houses built

by the government. These builders are the clean-cut Americans. You are struck by their comparative youth. At the supper table they wear clean shirts, and they are in good spirits.

At 6 o'clock in the morning they sit down to breakfast in their work togs, pile out into the big motor lorries that carry them down into the canyon five miles away, lunch boxes under their arms, saluting the "graveyard" shift coming off the job, and ready to tear into it for another eight hours.

The depression? What depression?