

Perils of a Sandhog

Catapulted Through
Tons of Silt Into Black
River Waters, Yet He
Lives to Tell of His
Experiences

By WILLIAM HORNE

IT IS perhaps the "sandhog," the human mole who goes about his death-defying trade of burrowing into the innards of the earth constructing subways, tunnels and mammoth foundations who holds first place in a swiftly moving world of high adventure and glamorous drama. And well might his job be called the world's most dangerous game.

Unlike his brother, the miner, who works hundreds of feet below the surface in gloom and shadow, the sandhog must have glaring light at his constant command. Unlike his brother-in-trade, he can work only in three-hour shifts at most, and under certain conditions only one hour each day, cut into two thirty-minute periods.

Picture, if you can, a gigantic steel tube, twenty feet in diameter, being built through the bowels of the earth a hundred and fifty feet below the surface.

An enormous cylinder with the front end open and protected only by a movable, circular steel cap that precedes construction, pushed forward by mighty hydraulic jacks that have a combined thrust of a million and a half pounds.

Hundreds of tons of sand and dirt and water press constantly on the steel walls and seek admittance through any possible opening.

As the gigantic steel cap is forced forward to make room for additional sections of the tube, the muck and silt and sand and water are exposed in a gushing, naked circular wall. But it does not come far into the tube.

What holds it all back and makes construction possible? Nothing but a terrific pressure of compressed air. Enough pressure must always be kept inside to equal the pressure without—be it twenty pounds to the inch or fifty.

If, when the cutting cap, or shield, is hitched forward, there comes a "leak" or a "fissure" in the naked, newly exposed wall before an additional section can be bolted in place, or the air within the locks may escape, there is great danger.

This is called a "blow," and with no resisting air to hold it back the sand, muck, silt and water will gush in and fill the tube, often drowning or smothering to death the men working in that compartment.

"Shot" From Tunnel

ALWAYS there is constant danger of a "blow," the most dreaded of all catastrophes that can befall a burrowing sandhog. Many men have died, caught like rats in a trap; others have been literally shot through the earth to the surface where the air escapes above.

But only one, so far as is known, has ever lived through this awful experience to tell about it. That was during the construction of the Battery Tunnel beneath the East River in New York City.

There were three men in the "head" of the tube when the unexpected blow came. First, a fissure appeared as if by



magic in the newly exposed, naked wall of sand and mud.

Suddenly there came a deafening report as it broke wide open, and the three hapless men were sucked bodily through the opening with the escaping compressed air.

Richard Creedon was one of the men, and his breath was sucked away by the terrific gush of air as he went hurtling through the 120-foot length of the fissure.

His breath came back to him as he was thrust upward through the bed of the river, and the icy water revived him. Choking and gasping he was expelled upward and shot high above the surface like a straw caught in a typhoon at sea. He fell back with a splash, unhurt, and swam ashore unaided.

It all happened in seconds. He sensed no conscious moment between the time of the actual blow and his expulsion through the bed of the river.

It was just one of those things that happen—a miracle.

But his two companions were not so fortunate. The body of one of them was fished from the river a quarter of a mile away within an hour; it took a day and a night to locate and dig the third man's torn body out of the silt and muck of the river bed.

Story of a "Sandhog"

IT TOOK seven years to construct the Holland Tunnels, those twin tubes that connect Manhattan and Jersey beneath the Hudson River. Each tube is 9250 feet long, and cost between \$48,000,000 and \$49,000,000.

Indeed, high adventure and glamorous drama went hand in hand during this vast undertaking, and many are the weird and thrilling stories related about the muckers and sandhogs who defied death daily in their hidden, steel tombs far beneath the murky waters of the Hudson.

Bobby Finch, a veteran who labored five years during the construction, recalls a hair-raising escape from death in a smaller but similar tunnel being

He was the only man in the forward lock when there came a sudden "blow" and the tunnel began filling with water. A fissure appeared in the silt and his body shot up through the murky blackness

constructed in Germany, when a "blow" came.

"I was the only man in the forward lock," he says, "when a sudden 'blow' came and the tube began rapidly filling with swirling water. I frantically climbed to a low shelf as the water rose, and within a few minutes it had crept up to my neck.

"I held my face right up against the ceiling in order to breathe, and I stayed in that position for more than an hour. I couldn't move, for I couldn't swim, and if I'd fallen off I'd not have had a chance.

"Well, sir, the water kept rising, and I kept pressing higher against the ceiling, but there must have been enough air left to keep the water from completely filling the tube, for I'm still living to-tell about it.

"I guess that hour was about the longest hour I've ever spent, until they finally got in to me and pumped the water out."

A Human Plug

IT WAS when this same tunnel was about half completed that a fissure appeared and sand and silt began dribbling in. Four men worked feverishly for half an hour trying to check the leak. During that time they managed to hold it back, but not for long.

Suddenly, with a terrific roar it opened wide. The men redoubled their puny efforts to check it. They fed sacks of straw kept nearby for such an emergency and bits of board into the ever widening maw. They threw in every conceivable, movable object. They ripped off their torn, sweatsoaked

clothing. But everything they stuffed into the crevice was swiftly, violently sucked up and out of sight.

The fissure grew steadily larger and the air from the compartment swept suddenly out in one terrific burst.

A Swede named Steve Stenjordf was crouching nearest. He was sucked mightily into the cavity. Mud and sand and muck followed, the edges of the enormous hole eating away and sucking upward.

Stenjordf's body stuck somewhere in the fissure before it reached the river bed above. The mud and sand and muck packed in behind it and the "blow" was stopped.

This, too, was nothing short of a miracle. Only one man paid with his life.

Facing Air Pressure

THE life of a "sandhog" is, at best, an uncertain one. His job is, indeed, the most hazardous of all death-defying trades.

Living in his subterranean chamber under the terrific pressure of compressed air may wreck him physically, impair his health to the extent of total disability and leave him a helpless invalid.

Taking these chances, he must follow a strict routine in order to work under any conditions at his trade.

It would prove instantly fatal if he should step immediately into one of these chambers so highly charged with air. Or, once safely inside, it would be equally fatal for him to go instantly out into normal atmosphere.

Bobby Finch was laid up several days after his narrow escape when he was trapped like a rat in the turgid water and boiling silt that filled the tube in which he was working when the blow came. But he was back on the job within one short week.

And so Steve Stenjordf would have been back on the job had he lived, as have all of them whose lives have been spared after an accident while they played their grim game with death.

