

# SCENES ALONG THE ROUTE OF THE TUNNEL

## How Work Is Carried on Under the Columbus Column.

### Circle Station for Rapid Transit Trains Nearing Completion—Some of the Difficulties Surmounted.

Without doubt the part of the rapid transit subway excavations that is seen daily by the greatest number of people is that around the Circle, at the crossing of Fifty-ninth Street, Broadway, and Eighth Avenue. It is here that more surface street-car tracks cross each other than at any other point in the whole city, the Eighth Avenue, Fifty-ninth Street, Sixth and Amsterdam Avenue lines of the Metropolitan system cutting one another, while the Broadway and Forty-second Street line of the Third Avenue system intersects them all. It is here, too, that a large percentage of the daily crowd going in and out of Central Park throngs, for one of the Park's main gates is at this southwest corner.

All the thousands who see the subway at the Circle probably look at it with either interest or wonder, for nowhere else have the excavations brought about such a scene of upheaval and confusion. Every surface car track is suspended on rough wooden bridges; every walkway at the crossing is flanked by the rocky pit, at the bottom of which scores of laborers work with hammer, drill, and pick; even the very statue of Columbus, a mass of stone weighing many tons, is half supported by trestle work, the rock that once formed the foundations of its eastern side having been blasted away to make room for the great underground railway station, to be called the Sixtieth Street Station, because its several entrances will be built on the up-town side of the Circle.

That the station, large enough for platforms 200 feet long on each side, is fast nearing completion is evidenced by a certain inscription inside it, the letters only being visible to one who has descended to the pit and not to travelers along the surface. The inscription has a background of opalite, (grayish tiling,) and the lettering is of a bright blue. It reads:

60TH STREET.

The sign looks just like it will when passenger trains begin to run past the station three years hence. It is on the eastern wall of the station, and all along the same wall are other sample panels of tiling, placed there so that the representatives of the Rapid Transit Commission can tell what kind of wall finish they want as a permanent thing. One panel has the opalite, another Tiffany brick, a third plain, every-day tiling.

The toughest problem that faced the engineers in the Circle excavations was how they would hold up the Columbus column and work under it at the same time. This was the way they went about settling the question: Through the rock foundations a small shaft was bored, parallel with the street pavement and four or five feet below the base of the column. At each end of the shaft strong uprights were placed, and then iron beams, heavy enough to hold up half a dozen statues, were run through the hole horizontally, their ends finally resting upon the uprights. This done, the rest was easy. The remainder of the foundation rock was taken away, leaving the monument safely resting on the beams, and later, when the steel work of the station was built, its perpendicular posts took the places of the wooden uprights. Meanwhile, in order that the westward half of the original foundations should not be left in danger of crumbling in toward the station, a wall of solid masonry was built beside them to act as their complement.

#### MAKING A STATION.

As the work now stands, the excavations extend from the Fifty-ninth Street surface car tracks to the outer wall of the building formerly occupied by Durland's Riding Academy. Nearly all the space required for the station, in fact, has been excavated, and the only rock that remains to be gotten out of the way is a strip on the west side, just north of the statue. More than half the iron work is already in position, including that which will surround the easterly ticket offices and platforms and the four tracks. Very soon, when the last strip of rock has been blasted away, the iron for the west side of the station will be put up. As far out as the edge of the south-bound express track, beginning on the Eighth Avenue side, the roof also is in place, not only the initial concrete being completed, but also part of the interior finish, consisting of pure white enameled brick. So spotless do these bricks and the test panels of the wall appear among their rough surroundings that the visitor wonders if they will remain unsailed for the next few months during which the blasting and diggings is to continue around them.

This is the only station that has been well begun along the tunnel, although the one at Fiftieth Street and Broadway, which is also within the section of Naughton & Co., has been barely started. Besides the complication of the statue, the contractors had to deal with many troubles in the way of sewers, gas mains, water pipes, and other smaller conduits. It is stated by those who know that the difficulties, taken on the whole, were greater right at the Circle than at any other one point along the line. A large sewer that originally came down Broadway and went straight under the statue right in the way of the tunnel had to be moved. After it was taken around the site of the station excavations, it was directed down the side of the street, instead of through the center. A thirty-inch water main from up town was in the way, too, and the engineers had to take it around the station in a loop.

Besides the larger pipes and the sewer, there were many smaller ones that had their course near to the street surface, so near that they did not have to be moved. As the work close to the statue and further down Broadway proceeds, they hang suspended in their original places, and it is probable that the engineers will find it convenient to leave them there permanently, as there is plenty of room for them between the roof of the subway and the street. The point where there are most of these smaller pipes is just south of Fifty-ninth Street, opposite the Hotel Virginia. Here are seen two or three gas mains, great bunches of little conduits for electric wires that give power to the surface cars, and an Edison duct for electric lights. The large water main that was looped around the Circle also is in view, having already traversed its new course and come back again on its way down town.

The section whereon all this work is being done is No. 5 (B.) Naughton & Co.'s chief engineer, Major McNulty, superintends the undertaking in a general way, as he does all the other ventures of the company. The engineer directly in charge for the concern is Mr. Wilson, while Division Engineer Craven and Section Engineer Myers supervise the work for the Rapid Transit Commission.

If one happens to pass the Circle when a blast is about to be fired, he sees no little commotion roundabout. As soon as the dynamite has been placed in the hole made by the drill, the drillers and blasters rush up to the street to get out of the way. Then four or five men, armed with brilliant red flags, take their positions around the neighborhood and wave at the cars and pedestrians. When the way is clear, everybody having run as fast as they could from the place indicated by the flags, a short, dull report is heard, and the ground shakes a bit, as though a mild earthquake were on. Then all is over; the flags disappear; the drillers prepare to drill again; the laborers go back to work, and the "trash gang," composed of men who remove the debris after a blast, hasten to get out of the way the broken fragments of rock.

#### HOW THE BLASTING IS DONE.

Just at present most of the blasting is being done under the point where the tracks of the Eighth Avenue and Broadway lines cross. Each explosion shakes up the tracks somewhat, and the workmen, if asked whether or not there is any danger of an accident, reply:

"There's always danger, but we keep the cars out of the way, and so, even if the blast does more than we calculate on and tears up the tracks, no harm will come, and we can put the rails back in place very quickly."

Up to date no explosion thereabout has dislodged the supports with which the tracks above are upheld, and these supports are always subjected to tests immediately after a blast, to discover if they have been weakened at all. Each charge of dynamite displaces about five square yards of rock, and the drillers are so expert, says Mr. Wilson, that they can tell

just where to put the charge in order to get out of the way a certain area of material without disturbing any of the rock they don't want to dislodge. Not only at the Circle, but also through the rest of the section, which extends up from Forty-seventh Street, the chief material met by the excavators is rock. The car tracks of the Broadway and Forty-second Street line flank the work all through this distance, and so it happens very frequently that cars are stopped for a blast along the lower part of the section, as well as near the Columbus Statue.

Between eight and nine hundred men are employed on the work. Since the strike of last week there has been some delay, and during Thursday and Friday only a small proportion of the laborers usually at work on the Circle station were there. Around the edges of the station excavations many things are yet to be done—the underpinning of the Durland building, the foundations of which will be touched, and the cutting of passages for stairways down to the station. These entrances will be in front of the above-named building, to the southeast of it, and across Broadway, near the southeast corner of Sixtieth Street.

Below the Circle, all the way down to where the section begins at Broadway and Forty-seventh Street, there is as much indication of active work as along any other part of the subway, and one has but to walk southward to see that the contractors on this section have not confined all their efforts to the especially difficult undertaking of holding up the Columbus Statue and rearranging the sewer and other pipes around its base.

The block between Fifty-eighth and Fifty-ninth Streets is partially opened to grade, and the remaining short stretch, right at the former street, shows a cut made to almost half its intended depth. All the work here is on the west side of Broadway. The rock to be excavated is not so solid as that under Washington Heights, but hard enough to necessitate the continuous hissing and grating of many compressed air drills. Along the next block, from Fifty-eighth to Fifty-seventh Street, there are more openings on the west side. A narrow trench has been sunk all the way, not reaching grade at any point yet, but constantly increasing in depth and width under the drill and pick.

At Fifty-seventh Street the work changes from the west to the east side of Broadway, and a narrow cut, like the one on the block above, runs down to Fifty-sixth Street. Here, too, rock predominates, and the number of drills seems to increase as the pedestrian walks south. Between Fifty-sixth and Fifty-fifth Streets, still working along the east side tunnel, the drillers have reached grade for a little way in the middle of the block, and at this point a great hole has been made out toward the center of the street, necessitating the upholding of the street car tracks. This supporting is especially difficult where the excavating underneath is being done in rock, rather than in soft soil. Although there is mostly rock on this block, not all of the earth is hard, for every now and then, unlike the cuts above, this one shows streaks of decayed conglomerate rock, rotted until it is nowise different, as far as the diggers are concerned, from sand or gravel. However, these streaks are not extensive, and the drill holds sway over the pick as elsewhere through the whole section.

#### SUBWAY FLOORING LAID.

Between Fifty-fifth and Fifty-fourth Streets, on the east side, grade has been reached nearly all the way, and even the first concrete flooring of the subway has been laid. Piles of steel lie all over the bottom of the cut, ready to be placed in position in a few days. The material to be excavated here also is largely rock.

The only stretch along the entire section where nothing has been done as yet is between Fifty-fourth and Fiftieth Streets, a distance of but four blocks. At the latter street, however, the upheaval commences again, and it is in the three blocks below this, the last three of the section, that most advance has been made, the work at the Circle excepted. From Fiftieth to Forty-ninth Street grade has been reached along the west side of the block, except for a short distance near Forty-ninth, where they have almost completed the depth of the cut, but have not yet finished it as regards width. There was less rock to be gotten out of the way here than five blocks above. In the part of the cut that is finished as to excavations the concrete floor is down, and the steel is all ready to be put up. The digging has trespassed on the line of the west surface car track, which is being upheld.

Along the west side of the block from Forty-ninth to Forty-eighth Street they are down to grade, but in about one-fourth of the distance, toward the latter crossing, the entire width of the tunnel has not yet been cut. Part of the concrete is in place or the bottom, the west surface track is undermined, and the sides of the excavation show that here, too, rock was in the way, only occasional strips of soil being found. From the north side of Forty-eighth Street to Forty-seventh all digging is finished in the west tunnel, this being the block that is nearest completion between Long Acre Square and the Circle. The concrete floor is solidly in place, and the steel is to be inserted shortly, piles of it having already been carried to the cut and heaped up along the concrete bottom. Meanwhile, as on the stretches above, the west surface track is upheld with great beams, and the numerous small conduits from up town hang suspended near the street line, where most of them will doubtless remain for good, the rest being shifted downward or sideways, as the engineers think most convenient.

One of the points of interest along the line is at Fiftieth Street and Broadway, where there will be a station. Already one-third of the work on excavating for the west side of this has been done, a large hole extending westward into the cross street. The four-story brick building on the southwest corner was undermined, and it is now held up by long wooden beams, nearly all the soil from beneath it having been removed. Another point of interest, or, rather, one that will soon be remarkable, is at Fifty-third Street, where the subway will have to go under the Sixth Avenue line of the Manhattan Elevated Railroad. In this connection it may be noted that, whereas the proposed line of the tunnel is to intersect the elevated in several places, not a single one of these points has yet borne evidence of subway work. The crossing at Fifty-third Street will probably be the first one where the excavators will have a chance to find out how much trouble it is to hold up elevated tracks and surface roads at the same time. Mr. Wilson, in speaking of the matter the other day, said that the latter were in reality more troublesome than the former would be, although it might appear otherwise to the inexperienced observer.

The other points where the subway and elevated will intersect are at the Brooklyn Bridge, where the edge of the great downtown station is to reach as far as the terminal station of the Third Avenue elevated line; Forty-second Street and Sixth Avenue, and Broadway and Sixty-fifth Street.

## YOUNG ABDUCTOR ARRESTED.

### Had Lured Sixteen-Year-Old Girl to Philadelphia—Inspector Thompson's Work.

Police Inspector Walter L. Thompson, who has carried dismay into the midst of the "cadets" in the "Red Light" district since his assignment to that vicinity, established a new record on Friday for the quick apprehension of a young east sider charged with abduction. David Dunn of 13 Monroe Street is the prisoner. He is nineteen years old, and the young girl whom the Inspector charges him with enticing to Philadelphia, after promising to marry her, and there placing her in a disorderly resort, is Fanny Stein of 34 Monroe Street.

The girl is sixteen years old, and quite pretty. Bruised from beatings received because of her unwillingness to do the bidding of her Philadelphia keepers, she lies now in Bellevue Hospital in a pitiable condition. She can speak but little English, and during her two years' residence in America has lived with her father, Max Stein, a locksmith, and another relative. Her mother is in the old country. She was employed in a cigar factory on Eighth Avenue, as also was Dunn, and Inspector Thompson says the latter had promised to marry her, and some weeks ago had taken her to Philadelphia under promise of securing better work for her there.

Barney Morrosch, a driver for a mineral water company, seeing the poor girl, managed to get her away from the place and sent her back to New York. She was found on the street by a relative, who took her before Magistrate Hogan, in the Essex Market Police Court. Here it was said that Inspector Thompson knew more about such cases and could do more in running down malefactors than any one else in the Police Department, and to him the girl was taken and told her story.

Three hours after the case had been reported to the Inspector the latter, with his detectives, Kelley, Galvin, and Murphy, had obtained all the information the Philadelphia police had over the telephone, and had taken into custody the boy, David Dunn, in Broad Street. The latter was yesterday held in \$2,000 bail for examination by Magistrate Hogan.