

# GATE & FENCE ACCIDENTS & INJURIES

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## **Malfunctioning gates and fences can cause catastrophic and traumatic bodily injury and death.**

Providing expert services on numerous gate related injury claims has shown me that there are as many ways to become injured by a gate as there are types of gates. Whether the gate was part of a residential or commercial property, hotel, hospital, themed attraction, or penal institution sally port, malfunctioning gates have been the reason for all types of personal injury and wrongful death claims.

I am generally retained as expert witness on about a dozen active gate related personal injury or wrongful death claims at any one time. These cases are sometimes caused by defectively operating products associated with a multitude of problems. Some are caused by damage created by outside forces such as vehicular impacts or adverse weather conditions. Others are due to improperly maintained sliding or swinging car barriers or overhead apartment complex garage portals. Many are directly related to unprofessional service providers failing to understand required equipment problems that were later the cause of a claim. Other claims have proven to be the fault of the person injured. Equally providing my services to both the plaintiff and defense has enabled me to analyze all claims from a point of view that is unbiased. Each claim has been completely different, yet share many of the same types of related common component issues.

When I am contacted to become involved in one of these claims, the most important part of my investigation into the injury is to be able to thoroughly evaluate the gate, related parts, and service provider involvement. Sometimes the gate and operators have been removed, destroyed, or lost. In those cases, photographs and videos of the incident are all that is left to be analyzed. In some claims, as a result of years of neglect, gates have become disconnected from their tracks, welds have broken, or the gates have fallen apart and on to someone. In other claims, the electric gate operators have imparted severe forces to turn an otherwise well maintained gate into a potentially fatal weapon. Deferred or improperly maintained gate operators missing critical safety devices have failed to protect users from impact injuries. Some injuries have occurred due to abuse of some kind by the party now making the claim.

## **Gates and their associated operators have the potential to become deadly.**

I was asked to analyze a case where a small child was crushed behind a moving gate. I found the gate to have an improperly operating closer. No safety devices were ever installed with this system, as the contractor that had provided the equipment had opted not to plug in a couple of required modules, due to his lack of understanding of what the modules did.

In another case, there was no adjacent on/off switch near the gate. In one case, a workman was trapped and ultimately crushed between a stone wall and the gate when the gate mechanism was activated from a remote location. Ironically, the worker was the son of the man that had installed the gate several years earlier. No disconnect switch was ever provided because the installer was not aware that a local disconnect switch was required.

## **Gate & Fence Service Providers**

Having examined thousands of pages of deposition testimony related to gate injury and wrongful death claims, I often discover that the local gate service provider is insufficiently qualified to perform the required evaluation or preventative maintenance and lacks the knowledge of the systems installed. The subject gate operator installation was merely an adjunct to his normal scope of business which is installing yard fencing materials or other landscape products.

Many gate injury cases have been brought against homeowners' and condo associations that had service agreements with unqualified service providers. Repeatedly, I have read testimony that has stated that no formal training of any kind was ever given to the service provider. Often the reason for this lack of professionalism is due to what is commonly referred to as "watch one - do one - teach one" training. A new employee will "ride along" with a more experienced, although never properly trained employee or owner of a fence materials company. As this new employee is "taught" how to "service" the gate systems, wrong information or overall disjointed information is imparted as "how to service and maintain" these products. Eventually the new employee, often after only a couple of weeks of observation, is given his own truck and sent out to provide maintenance to products that he has only seen once or possibly helped test. Later, as need dictates, that same employee with whatever information and minimal experience he has acquired may be charged with training the next generation of gate service providers.

If an organization such as a homeowner's condo association relies upon a "professional service provider", and a full time ongoing maintenance contract is in place with that service provider, it is generally easy to make a direct connection between a defective condition and that service provider.

If there is no maintenance policy established with any service provider, and repairs are only made retroactively, there is less in the way of cause and effect that can be directly attributed to any service company. However, improper workmanship and wrong evaluations by a so called professional service provider may still attach that provider to an injury claim.

## **Gate Injury Accidents & Claims**

*Some actual cases where I have been the retained gate injury expert:*

### Woman hits gate with car, then gates falls on her as she walks underneath it

A woman attempting to enter a high lift rolling gate system in a commercial high rise building struck the gate with her car. As she could not gain access to the parking area, she entered the building through an adjacent single pedestrian doorway. When the automatic lift mechanism was activated, the gate, having been damaged, fell apart and fell onto the woman. The event was recorded on video as it happened. In this case, the woman never admitted to driving her car into the closed gate and failed to inform anyone that she had done so. After the gate collapsed upon her, the security camera recording of the entrance showed that she had in fact hit the gate with significant force. The impact from her vehicle created several bent component parts in the rolling gate which created a condition that allowed the gate to become stuck and un-tensioned. The gate, became disconnected from the activation drum, over-rotated and spilled upon the woman that was standing underneath the opening. In this claim, the gate was regularly maintained by appropriate service providers, and the damage created by the impact with the car was the sole cause of this injury.

### Forklift driver hits gate, delivery driver is buried by gate

A forklift struck a loading dock gate from within, and when the awaiting delivery truck driver began to enter the loading bay from the outside, the gate became dislodged and crushed him as he crossed under the damaged gate. Real time video recorded the incident. When the forklift driver hit the loading dock gate, he was unconcerned. The delivery driver attempting to access the opening was unaware that the gate had been broken by the forklift and upon raising the security gate he dislodged the now broken gate pieces and was unfortunately buried by the broken slats and fasteners.

#### Small child entered fenced pool area when the slat spacing was not up to current codes

A four year old child playing unattended in the backyard of an apartment complex was able to climb through a pool fence surround and fell into the common area swimming pool. The child was found struggling in the water and pulled to safety prior to drowning. The resident/parent of the child filed suit against the apartment management and ownership. A claim was made that the child should have never been left alone in the apartment yard by the management. Signs had been posted warning that there was no lifeguard on duty, and that the management made the tenants aware that they were using the pool at their own risk. That line of defense was quickly pushed away as Mr. Panish made a site visit to examine the pool fencing system. He found that the spacing of the vertical and horizontal fence bars was inappropriate and did not meet any code requirements since the apartment had been built. The pool was apparently in place prior to the construction of the new apartment buildings and the gate and fence had not been changed or upgraded to meet current code compliance. The fact that the child was able to gain access to the pool by slipping his body sideways between the vertical bars was quickly recognized when the site inspection showed that an 8" sphere would easily pass between the fencing. Building codes at the time of the apartment construction clearly stated that no more than a 4" sphere should be allowed to pass between any fencing materials. During mediation of this claim a reasonable agreement was reached between the two parties, and the pool fence was reworked to comply with current standards of safety.

#### Overhead security gate falls on warehouse worker

A worker in a commercial warehouse had an overhead security gate fall on him when the reel detached from the gate brackets shortly after being serviced by an overhead door company. Partial video coverage was available. Service had been performed on the overhead gate the previous day. The service providers had failed to properly reattach the gate curtain to the operating drum. After the gate was opened and closed one or two times, the gate mesh separated from the overhead mechanism that was designed to operate the gate. The service providers failed to test the gate after the repair was made and left the gate in an unsafe condition that created the injury. There was enough video evidence that was observed that showed that the service providers were directly responsible for this injury.

#### Parking lot gate falls on pedestrian

A manual rolling parking lot gate system was hit by a truck as the truck attempted to enter the parking lot. An hour later, a pedestrian walking past the gate was hit when the gate fell over as the brackets attached to the cinder block wall had been pulled off of the block wall by the truck impact. When a truck ran into the rolling gate in this case, the force dislodged the aged hardware that was installed into voids in the cinder block wall system. The loose hardware lost its ability to connect the gate rail system and the gate was left precariously balancing on the now damaged tubular sliding system. Wind or vibrations from passing traffic created enough force to topple the now loose gate onto the pedestrian walking down the street.

#### Delivery truck damaged by gate

During a product delivery the truck driver using a powered pallet jack struck a rolling gate, moved it off of the steel track embedded in the concrete, and pulled the door away from the designed path of travel. The gate fell over and damaged the delivery truck. A truck driver making deliveries using a powered pallet jack was unaware that he had made contact with the parking gate fence as he was bringing the last pallet into a commercial warehouse. It was discovered that over a ton of materials were being moved by that pallet jack. Due to the fact that the pallet jack was powered, the truck driver never felt the impact with the gate as the pallet struck and pushed the gate off of the floor track. The gate bent away from the tube railing that it normally moved on and fell over onto the truck just as the pallet jack was being lifted up onto the rear tail gate lift of the truck. Fortunately for the driver, the truck was the only casualty in this claim.

#### Woman and infant struck by wrought iron gate

A small 4' wide x 6' high wrought iron pedestrian gate adjacent to a condominium complex entrance dropped off of its hinges. The gate had been continually sprayed with water from the irrigation system of the nearby planters. After approximately 20 years of this constant condition, the pivot hinges finally rusted away. A woman and her infant in a stroller

were struck by the door as it fell from the pivots. No inspection or evaluation was ever made to the gate or pivots even though the paint was showing significant rust had developed. The owner of the adjacent condo, as well as the property management service, never paid any attention to the fence and rarely used it for entering the property.

#### Sliding gate strikes elderly woman

An elderly resident of an apartment complex was struck by a malfunctioning sliding gate when the gate operator suddenly sped up and came into contact with the woman as she was crossing the gate threshold. The automatic sliding gate used to close off a subterranean parking area in this apartment building was never serviced or maintained in any way. As a key card was used to access the parking area from the street side, the automatic timer of the gate operator was the only control to maintain the open position of the gate. The timer had finished the cycle and began to close the gate. The automatic sliding gate did not have any photo sensors or any other safety devices across the threshold, and the gate closed. During the travel of the gate the motor control suddenly sped up, and as the woman was about to cross the gate track on the threshold, she was struck by the leading edge of the moving gate. Measurements of force showed that when the woman made contact with the gate it was in excess of 500 pounds of force. As she went down from this impact, she broke her shoulder and hip.

#### Parking garage gate crushes down onto car

A tenant of a beach side apartment complex was leaving the subterranean parking area, his car approached the pedestrian sidewalk, and the driver stopped the car. While the car was still underneath the overhead gate, the pivot hinges that were mounted on both sides of the gate broke loose from the cinder block mounting plates. The overhead gate crashed down upon the car smashing the roof, trunk, rear window and windshield. It was determined that the salt air had corroded the hinges after many years without any lubrication or maintenance. Rust had developed that seized the bearings of the hinges. The rust had created a condition where the door movements had twisted the anchor bolts out of the wall since the hinges could no longer rotate. There was never any preventative service or maintenance to the motor controller, and the clutch mechanism that would have prevented this situation was found to have been disabled and in a failed condition. No cross threshold beams were installed, and the gate closed upon the occupied area due to the timer function of the gate operator.

#### Casino overhead security gate falls onto patron

A casino patron was standing adjacent to a loose link security gate. Suddenly the gate broke away from the drum that coiled the gate. The full weight of the gate and gate materials fell onto the patron, cracking his skull, imparting significant force to his neck and spine, and fracturing his lower leg. The casino had not had any service or maintenance performed to this security gate since it was installed 10 years prior. The gate was regularly opened and closed a couple of times a day.

#### Swinging gate reverses and smashes 2 cars

An automatic loop controlled swinging gate system suddenly reversed and smashed into two cars as the drivers were waiting to leave the parking lot. On a rain soaked day, a swinging automatic parking gate attempted to close while two vehicles were in the path of travel. The gate was supposed to have been monitored by in ground magnetic loops to guard against this situation. It was found that the loops were defective, and had been a known condition for several months prior to the incident. The service providers felt that the readings that were observed when tested were substandard, but failed to inform the property management. Both cars were hit by the un-sensored gate system.

#### Construction fencing gets blown onto pedestrian

A temporary gate and construction fence were lifted off of their support posts due to high winds in the area. An improperly anchored long term temporary construction fence became airborne when strong winds lifted it from the in-ground posts. A pedestrian was struck with the wind whipping fence, and was catapulted over 30 feet into the air when a subsequent gust lifted the gate and fence materials as he was attempting to cross the downed fence in his path. There were no appropriate connections made between the fence fabric and vertical posts. The gate and all of the fence posts were planted in sand only. At some point prior to the incident, privacy screen fabric was attached to this temporary fence and gate system. As

the pedestrian attempted to cross over this now disconnected fence, a high gust of wind lifted him off of the ground and flung him into an adjacent street lamp post. It was determined that no engineering or calculations were ever made when the decision was made to place the screen fabric without further uplift hardware being installed. The original fence provider was never made aware of the changes made to his installation.

### **What went wrong?**

If the gates were maintained, what went wrong? Was there an outside influence that was uncontrollable or acted upon the gate that led to the injury? Was the service provider competent to make appropriate repairs or maintenance?

If the gates were not maintained, the facilities either relied upon the owner or management to perform any repairs to these products that failed. The lack of inspection, maintenance and knowledge of the operators and gates are often due to a desire to decrease the costs to maintain the property. Some depositions have shown that owners felt that the reason that they have building insurance is to protect them from claims such as these. Failure to maintain is not to be offset by an insurance policy for coverage after an injury occurs.

Many gate related injuries have occurred because the automatic gate operator is not properly maintained. There are generally multiple types of safety devices that are part of these operators. Sensory loops that assist in obstacle detection with vehicular gates are generally buried adjacent to both sides of the threshold. These magnetic loops are often used to determine vehicle proximity to the path of travel of the gate. If these loops do not work as designed, they can create a condition where no zone coverage of protection exists.

Concrete or asphalt can cause reactions with the insulation of these loops and lead to direct grounding of the loop sensor. When the insulation of these loops has been compromised, water or other ground conditions can short out these sensor loops, yielding them ineffective. When a gate service provider works on a gate, it is essential to verify that all of the safety devices for that gate are functioning to their maximum potential. Threshold beams, magnetic loops, and auto reverse functions need to be checked regularly. Power outages can affect the motor controls, therefore back up batteries and charging systems all need routine maintenance verification. Control modules for various sensory and motive functions need to be checked for appropriate operations as well. The speed and force that the gate travels is a field adjustable condition. It is critical that these speed and force controls meet or exceed the manufacturer's recommendations.

Mike Panish has been the retained fence and gate expert for numerous cases throughout the United States. Mr. Panish is frequently retained by both plaintiff and defense to provide an unbiased and concise analysis of the site conditions that have led to the case claim. Mr. Panish has had over 35 years of experience providing and installing all types of security gates and enclosures for commercial, residential, and institutional usage. His company has been contracted to design and install sally ports and security walls for penal institutions, security access ports for industrial buildings, and many other services pertaining to gated and restricted access environments in medical and laboratory facilities. One of his primary areas of expertise pertains to automatic door and gate operator defect claims.

Mike Panish has authored many articles on the subject of door and gate related claims and maintenance issues related to automatic portal systems. He is licensed as a door and security hardware contractor in the State of California. He has been the retained expert witness for automatic door and gate cases across the United States. Mike is able to quickly ascertain the facts, explain the critical information pertaining to your case, and can assist you in developing your case from discovery through trial. Mike Panish has offices in California, New Hampshire, and Massachusetts. He is available for nationwide inspection, analysis, and testimony. Michael Panish can be reached at (888) 902-4272 (Sharon) [www.ConstructionWitness.com](http://www.ConstructionWitness.com)