

1953

Jack Aldon Hewitt v. The General Tire and Rubber Co. : Brief of Appellant

Utah Supreme Court

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IN THE SUPREME COURT OF THE STATE OF UTAH

JACK ALDON HEWITT,

Plaintiff and Appellant,

— vs. —

THE GENERAL TIRE AND RUB-
BER COMPANY, a corporation,

Defendant and Respondent.

Case
No. 8038

Appellant's Brief

FILED

DEC 31 1953

WOODROW D. WHITE

Clerk, Supreme Court, Uta *Attorney for Plaintiff
and Appellant.*

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Plaintiff and Appellant,

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Appellant's Brief

NATURE OF THE CASE

This suit was brought by the appellant, Jack Aldon Hewitt, against the respondent, The General Tire and Rubber Company, a corporation of Ohio, and Wheeler General Tire Company, a corporation of Utah, to recover damages for personal injuries consisting of a permanent, crippling injury to appellant's right hand and wrist, resulting from the exploding of a new tire manufactured by the respondent, The General Tire and Rubber Company, which tire the appellant was mounting upon a

wheel at the time the explosion occurred. The explosion occurred on July 2, 1952, at the service station operated by the appellant on the southwest corner of 11th East Street and Hollywood Avenue in Salt Lake City, Utah. The appellant alleged in his complaint that the respondent the General Tire and Rubber Company was negligent in the manufacture of the tire and in causing the said tire to come into the hands of the appellant in a highly dangerous, defective condition. The appellant alleged in that connection that the tire had a defective beading and was incapable of containing normal air pressure, and that such defective condition rendered the tire highly dangerous to the life and limb of anyone who would be called upon to first mount the tire upon a wheel; that the respondent knew of such dangerous and defective condition, or in the exercise of ordinary care should have known of it. At the conclusion of the presentation of the evidence, the respondent moved the court for a directed verdict (R. 444, 445), which motion the court took under advisement pending the verdict. The matter was submitted to the jury and the jury found the issues in favor of the appellant and against the respondent The General Tire and Rubber Company of Ohio, and returned a verdict in favor of the appellant for damages in the amount of \$14,889 (R. 63 A). Judgment was then entered on the verdict on April 24, 1953 (R. 63). Thereafter, the respondent moved for a directed verdict and for a new trial in the alternative (R. 63, 64). The court having reserved its ruling on the original motion for a directed verdict pending the findings of the jury entered its order granting the respondent's

motion (R. 66), and thereafter entered judgment setting aside the verdict and judgment entered thereon, and gave judgment no cause of action in favor of the respondent and against the appellant. From such order and judgment of the trial court, this appeal was taken by the appellant.

STATEMENT OF FACTS

The plaintiff suffered a very severe injury to his right hand and wrist which resulted in sixty to seventy-five per cent permanent disability (R. 113).

The witness LeRoy P. Murphy, an employee of the Granite Furniture Company, testified that on July 2, 1952, he drove one of the Furniture Company's trucks over to Jack Hewitt's Texaco Service Station on 11th East and Hollywood Avenue in Sugarhouse for the purpose of having a tire mounted on a wheel. He obtained the tire from the rack in the basement where the tires were stored, and the witness instructed the plaintiff to mount the tire on the wheel (R. 138, 139). He didn't know how he could have injured the tire in any way in delivering the tire to the plaintiff (R. 139, 140).

The plaintiff testified that he managed and operated the Texaco Service Station at 1974 South 11th East and had done so since September 12, 1951. That on July 2, 1952, the witness Murphy, an employee of the Granite Furniture Company, delivered the tire, Exhibit 7, to the plaintiff to be mounted on the spare wheel. Plaintiff has had considerable experience in mounting tires having

repaired hundreds of tires. He identified Exhibit 18 as the spare wheel of the Granite Furniture truck (R. 168, 170). He also identified Exhibit 7 as the tire involved in the explosion. He identified plaintiff's Exhibit 19 as the rubber mallet which he used at the station for the mounting of tires and which he used for the mounting of Exhibit 7. The witness then proceeded to demonstrate the procedure of mounting a tire before the court and jury, stating that he bounced the tire a couple of times and inspected it from all of its angles.

Exhibit 7 appeared to have been in storage for quite some time as it had dust on it and cobwebs inside of it, which he proceeded to clean out with an air hose (R. 171, 172). He just made a normal examination of the tire which appeared to be sound and there weren't any appearances of breaks or deviation in the casing. He is certain that the deviation in the casing opposite the broken bead area was not there at the time he mounted the tire, and he did not observe any scuffing on the tire at all. He did not observe the little break that appears to be under the red dot on the tire. He believes he would have noticed it had it existed on the tire at the time he examined it before the explosion (R. 172). He forced the wheel into the one side of the tire and then took the rubber hammer putting one foot on the tire to keep the rest of the tire from coming back off the wheel and it didn't require much force to knock the tire into place. Then he put the tube in the tire which at that time had been repaired and tested and there were no breaks in it at all (R. 174). After demonstrating the manner in

which he put the tube in the tire, the witness testified that he put the other half of the tire on with a rubber mallet until the tire was entirely on. He used no implement in the mounting process other than Exhibit 19. He then inflated the tube so that as far as he could determine there were no kinks in it, and the tire was inflated to fit the beaded area on the wheel. He examined the beaded area and determined that the tire was in position on the rim. He then inserted the valve core and proceeded to inflate the tire. He inflated it to what he thought was sufficient pressure (R. 175, 176). He checked the pressure in the tire with the tire gauge. The tire gauge disclosed there were between 30 and 34 pounds in the tire. There has been no change in the tire gauge since the accident, and he has only used it since the accident to check its accuracy with other gauges. He had bought the gauge within a week or ten days before the accident, and before the accident had checked as many as 20 to 30 tires a day with the gauge. The gauge was received in evidence as Exhibit 20 (R. 177). At the time he tested the tire he could see the 30 clearly on the gauge, but 34 (the next graduation) was not evident. The standard pressure on that truck was 35 pounds and as this wheel was a spare, he intended to put 40 pounds of air into it. He connected the air hose to the valve stem and momentarily there was a violent explosion. He shook his head and was sitting in a pool of blood. He saw the tire hit the ground and begin to rotate. The following questions and answers were given at this point (R. 180, 181):

“Q. How long had the air hose been in contact with the valve and was air being introduced

into the tire after you made the thirty-four pound measurement before the explosion occurred?

“A. It would be kind of hard to say in measurements of time, but I exerted my pressure on to the air hose when it did explode. Air was entering it, I know, but it was a very short time, a very short time. A matter of split seconds.

“Q. About how much air, based on your experience, would you say you had introduced on this second application—

“A. I should estimate it was—

“Q. —before the explosion occurred?

“A. In the neighborhood of thirty-eight pounds, I would estimate. I know I wasn't taking the hose off to see if it was the forty pounds yet, the forty pound pressure, so I would estimate it was thirty-eight.

“Q. With what degree of certainty can you say that you had not introduced into this tire at that time in excess of thirty-eight pounds of air?

“A. I have made quite a few experiments. Not intentionally, just through curiosity and like if a tire comes in and the fellow wants thirty-eight pounds in his tires I can check and lots of times it will be thirty-eight pounds. Sometimes it might be thirty and sometimes thirty-six. But lots of times if it isn't right on the mark it will be right around a pound one way or another.

“Q. And you say you had just touched the air hose with contact on the valve when the explosion occurred?

“A. Yes, sir.”

When Exhibit 7 was brought into the station by

the Granite Furniture Company to be mounted there was a small paper tag with an adhesive back, stuck to the tread of the tire. It is customary for new tires to have that kind of a tag on. The respondent stipulated that the tire was new and hadn't been on a vehicle before (R. 185, 186).

He did not use soap in mounting the tire, but in the average service station, in his experience, soap is not used (R. 214). He was certain that the beads were on the shelf when he inflated the tube and set the bead (R. 207). Plaintiff has had custody of the tire since the accident either in the back of his house or in the back of the car. Nothing whatsoever has been done to the tire, Exhibit 7. It is in exactly the same condition as it was following the accident (R. 220-227). The purpose of the preliminary inflation of air is to center the tire on the rim properly as in the process of inserting it into the tire it is easy to twist the tube or get it at an angle. One of the primary purposes is to straighten the kink of the tube out, if there is one there (R. 227, 228). When he inflated the tire for the first time to bring the bead in position against the wheel and to straighten the tube within the tire, he rotated the tire with his hand to observe the full circumference of the bead on both sides. He observed no irregularities which would indicate that part of the tube was caught between the bead and the wheel. If there had been such a condition he would have observed it (R. 230).

The witness Tom Evans testified that he is a newspaper reporter and editor of the "News Bulletin" in

Sugarhouse and on July 2, 1952, he was directly across the street from the plaintiff's service station in an ice cream parlor when he heard a sharp report like a rifle crack and turned around quickly. He saw the plaintiff falling to the ground. He was entirely off the ground and coming down, probably two or three feet in the air. Momentarily, thereafter he saw the tire and wheel fall near the plaintiff and spin. He went directly over to the service station where some fellows had already taken hold of Jack and started diagonally across the street, and he saw that the tire had blown up (R. 141, 142). He followed closely behind the men taking the plaintiff to the doctor's office. When he arrived at the doctor's office, the plaintiff was lying on a table in a dazed condition, and the plaintiff groaned a greeting to him. Less than five minutes had expired since the explosion. The following conversation took place at the doctor's office:

“Q. Now what did he say to you at that time?

“A. He didn't say much. I said, ‘Jack, how did it happen?’ and he replied, ‘The tire blew up’ and I said, ‘What did you do, put four hundred pounds of air in it?’ He said, ‘No, I just had a little over thirty.’ And I said, ‘I never heard of a thing like that’.” (A. 143, 144).

When the witness saw the wheel and tire coming out of the air, the tire was still on the wheel (R. 145), that is approximately a quarter of one side of the tire was off the rim (R. 146).

The witness Everett Simmons testified that he was a line driver for Garrett Freightlines, and on July 2,

1952, was living at 1952 South Eleventh East, which is directly across the street on the north from the plaintiff's service station on the west side of 11th East Street. He was standing in front of his residence when he heard the explosion. He saw the plaintiff extended in the air (R. 159, 160). Plaintiff appeared to be four to five feet in the air, and the witness ran immediately to the station where he saw the plaintiff lying on the cement within about four feet of the grease rack in a pool of blood. The witness picked the plaintiff up and took him across the street to the doctor's office with the assistance of two other men (R. 161, 162).

The witness Ralph Moran testified that he is a newspaper pressman and on July 2, 1952, at about 4:30 in the afternoon he was about three doors south of the plaintiff's service station when he heard the noise. He started running in that direction and upon arriving at the service station, he saw the plaintiff lying on the driveway, and the tire and wheel were spinning around like a top (R. 163, 164). He noticed that part of the tire was off the rim about one-fourth or one-third of one side of the tire. He raised out on the tire and saw the tube which had a hole in it, and it was definitely torn. The tube was still inside the casing. He judged that the tear in the tube was as extensive as the area of the tire which was off the rim. He used no implements other than his own hand in examining the tire. He observed that the casing of the tire had a broken bead (R. 165, 166). He had seen a broken bead before and by flexing

the bead with his hand he was able to determine that there was a definite weakness (R. 167).

Dr. Irwin F. Winter who specializes in x-ray diagnosis (R. 122) testified that he took x-ray pictures (Exhibits 8, 9, 10) of the defective tire (Exhibit 7) (R. 123, 124) which show that each and all of the strands of wire in the bead were broken (R. 126). Dr. Winter was unable to identify any narrowing or decrease in diameter of the wires near the point of fracture (R. 130).

Witness Dick Rogers testified that he is a tire salesman and has been for approximately fourteen years, and is presently employed by the Dick Morrison Tire Company; that he mounts tires every day in connection with his work. The first thing he does when he mounts a tire is to put the tube in the casing, then he mounts the first half of the casing on the wheel (R. 253, 254). He then puts the valve stem in place, puts his foot on the tire by the valve stem and then with a mallet forces the bead down into the well. He then would inflate the tire with the valve gut out of the stem until both beads were properly seated. Then he puts the valve center back in and blows up the tire at the proper correct pressure. He does not apply any tire gauge to the tube on the first inflation because not enough air pressure is put in. The purpose of the first inflation is to straighten out the tube within the casing and to firm the beading into place on the rim. The witness stated that he has mounted in excess of five thousand tires during his fifteen years of experience (R. 255, 256). He procured Exhibit 12, which is a new General tire for purposes of

demonstration. He cut the bead out of the tire for plaintiff's attorney (Exhibit 22). It was stipulated that the bead in the experimental tire (Exhibit 12) was the same in construction as in Exhibit 7. The witness put yellow crayon marks on Exhibit 12 to indicate the area where he tried to damage the tire and break the bead by pounding with Exhibit 23 and 24 (R. 257, 258). He put the hammer on the cement floor and used the rubber side of the heavy tire mallet for some time, but couldn't make any headway so he turned it over and used the steel side and still didn't make much headway. He carried on a sustained pounding of the bead except for periods of resting for about thirty minutes between the area bounded by the two pieces of tape (R. 259). Dr. Winter also took X-rays of the experimental tire (Exhibit 12) which was similar in construction, tread and design to Exhibit 7 (R. 128). These X-rays showed no irregularities in the bead on the experimental tire in the area where the casing was damaged and broken (R. 130). The bead is essential to enable the tire to hold air pressure on the rim (R. 260). Mr. Rogers testified that he had been present when a new tire has exploded with the broken bead on a previous occasion when an attempt was made to inflate the tire (R. 261). If thirty-five pounds of air pressure were introduced into a tire, and the bead were broken, the tire would blow (R. 262). At Dick Morrison's where they mount a lot of tires, they do not use any lubricating soap, and he doesn't advocate the use of it (R. 268). In his experience he has never considered it necessary to use soap in order to provide

against the possibility of the tube being caught or kinked (R. 269).

Dr. Leon B. Linford, professor and head of the Department of Physics at the University of Utah (R. 271) testified that he headed the Department of Physics at the Utah State Agricultural College from 1936 to 1941, and from 1941 to 1946 he was at the Massachusetts Institute of Technology Radiation Laboratory. That he has been head of the Physics Department of the University of Utah since 1946. The problem of air pressure, or the ability of materials to resist air pressure, is part of the field of physics, and he is familiar with the phases of physics involving air pressures.

From the standpoint of a physicist, the tube is purely an air container to prevent the air from leaking out. The casing and the rim together constitute a wall strong enough to support the tube so as to support the forces of the air pressure inside. The rim transmits forces from the axle, the weight of the car, the driving force or the braking force, as the case may be, to the casing and from there to the road. The casing also protects the tube from road hazards. The function of the bead is to form a tight enough seal between the casing and the rim so that the tube cannot get underneath and get pinched. An essential portion of the bead, is the wire cable, which gives the bead sufficient strength to withstand the force of air pressure so that the bead is not pulled away from the rim to allow the tube to get underneath. It was stipulated that the bead in Exhibit 7 on both sides was made up of twenty steel wires much in

the same fashion as Exhibit 22, and that each one of these steel wires has the power to resist a pull of 290 pounds, that is, there are only four wires, but there are five turns of each wire, making a total of twenty loops. It was stipulated that the bead in the tire is designed for the purpose of withstanding the combined pulling of 5600 pounds before the bead wires would break. It was further stipulated that it would take approximately 155 pounds of air pressure to pull the wires of the bead apart, or break the wires if the tire were properly mounted (R. 275, 276, 277). The air pressure in the casing puts the cable under tension and it is possible to compute the approximate tension in the cable caused by a certain air pressure in the casing (R. 280).

In interrogatory No. 21 submitted to the defendants the following question was asked: "Has tire No. EEE-001914, or its equivalent ever been tested with regard to the ability of the bead to withstand stretching by any implement or device?" The defendants answered, "Yes". To the further interrogatory, "What experiments have been made and with what results?" the defendants answered: "Tested on bull dozers showing a strength in each bead of approximately 5600 pounds." (R. 283, 284). The defendants also admitted that a General tire of similar quality and construction to Exhibit 7 had been subjected to a test and that the bead broke and blew off the rim at 155 pounds of air pressure (R. 283). Dr. Linford stated that at 35 pounds of air pressure there would be less than 1,000 pounds pull on each of the bead cables, so that if the wires broke when

35 pounds of air pressure were introduced into the tire, that would indicate that the cable wires had a combined strength of about 1,000 pounds rather than 5600 pounds. In case of a defect, one couldn't be sure whether certain wires were completely defective, and that at 1,000 pounds was taken by a fraction of the wire, or whether the force was uniformly loaded (R. 287). In describing how the explosion could have occurred under the plaintiff's evidence, relative to the manner of installation and the amount of air pressure introduced into the tire, Dr. Linford testified that the tire showed no break through the casing so that if an explosion occurred the only place the air could have escaped sufficiently fast would have been to have had the bead slip off the end of the rim (R. 289). When that happens, you have a jet effect which can produce a surprising force (R. 289). He explained this force as follows:

“A. This is the place where the bead has slipped over the rim so that there is a gap. There would be a triangle two inches high at the middle with a base twelve inches long. The area of said triangle is half the base times the altitude or a half of twelve times two which would be twelve square inches. Now there is twelve square inches in which you have got air shooting out one side and the corresponding twelve inches in the opposite direction and which there are thirty-five pounds per square inch on the tire. Well, thirty-five times twelve, if I compute that right, is four hundred and twenty pounds so this fairly small opening here very conservatively with thirty-five pounds means that this started up initially with a force, started up and outward because the jet stream would probably not be directed straight

up, but started out with a force of some four hundred and twenty pounds of pressure as a minimum and it might have been two or three times that size.

“Q. Well, using your minimum calculations based upon your observations of the present condition of the tube and the description that I have given you as to the weight of the wheel and the tire and the man, you would say that a minimum of four hundred and twenty pounds of upward thrust was involved in the explosion?

“A. I would say that is the minimum.”

He testified that the lower bead was the one that must have failed because the force of the explosion was upward (R. 291). If the break had been on the top side bead as the wheel was lying on the street, the force would have been in the opposite direction and the wheel, instead of going into the air, and throwing the mechanic in the air, would have just skidded along the pavement. An explosion which involved a rupture in the tube in question and an air pressure of 35 pounds would be adequate to lift over 420 pounds into the air, so that it would be reasonable to expect that force to lift Mr. Hewitt and the wheel and tire both into the air (R. 292). Taking into account the actual weight of the tire, tube and rim, 53 pounds, and assuming that the plaintiff weighed 200 pounds, the force necessary to lift the plaintiff five feet in the air, and the wheel 20 feet in the air at the same time, would be about 2,000 foot pounds of work, and there was available in the tire about 6,000 foot pounds of energy or roughly three times that much. That is, the jet thrust would only have to be one-third

efficient (R. 293). Dr. Linford could not see how the tire could possibly be damaged with reasonable mounting procedures using the rubber mallet used by the plaintiff. Assuming that the twenty wires in the bead had a resistance power of 290 pounds each the introduction of 100 pounds of air pressure would not be sufficient to break any bead. If 140 pounds of air pressure were introduced into the tire, that would be getting to the point where it would be questionable (R. 293, 294).

At page 300 of the record, Dr. Linford was asked the following question:

“Assuming that the X-ray pictures show that nearly all of these twenty, if not all of the twenty, wires in the bead have been broken in the same place and assuming that the tire was properly mounted and that thirty-five pounds of air pressure was put in it, do you have an opinion as to what may have caused the failure of the bead?”

He stated that in his opinion the explosion would have been caused by either a flaw in some or all of the wires composing the cable or damaged by means of out of the ordinary working of the cable, the wires of which are moderately stiff (R. 301). Taking Exhibit 27 in his hand, he testified as follows:

“This being a fairly stiff wire the amount of work required to coil it onto a spool in transit from the factory, from the place of manufacture to the rubber company and so on, coiling and uncoiling to about this extent is not excessive but short kinks which I probably couldn't put in with my hand, any of the alloy steels are subject to changing of characteristics under cold working,

which means to carry them far enough, bend them far enough that they would normally take a permanent set. In other words, so that they would be bent instead of turning to the normal position so that they would be permanently bent.’’

Dr. Linford testified that it was not necessary that all of the bead wires were broken at the same time. It was possible that some of the bead wires may have been intact and others broken (R. 305).

On cross examination, Dr. Linford testified that the bead has to raise up something of the order of one-half inch before it comes off the wheel (R. 310). The inner tube does not come out in a blow out until after the casing gives way. The inner tube will only hold two or three pounds. The give occurs at the weak point. Finally there is a rupture and then it streams out (R. 315). When there are thirty five pounds of air pressure per square inch that force is exerted on all of the inner surface of the container equally until something gives way. If in the mounting of the tire, a portion of the tube were pinched underneath the rim, there could not be any greater air pressure exerted against the tube than thirty five pounds at the point where it is pinched. As you increase the air pressure within the tire, the bond between the bead and the rim is strengthened laterally (R. 317).

The witness for the defendants, William F. Hoelzer, testified that he was the manager of Technical Service for the General Tire & Rubber Company at Akron, Ohio, and part of his duties consisted of supervising the de-

signing, construction and testing of materials and the physical and actual road testing of tires and tubes. He stated that it is necessary that tires perfectly fit rims and that there is ample strength in the materials throughout the entire tire; that certain fundamental tests are given tires before they leave the factory (R. 319, 320). He identified Exhibit 7 as a 650 x 16, six-ply General silent grip designed tire, which is used on passenger cars and light trucks. From the serial number of the tire, EEE-001914, he could state that the tire was manufactured in October, 1950, (R. 321). The wire used in the bead has a *minimum* breakage strength of 290 pounds per wire. The size of the tire, the load requirements of the tire, and the type of service required of the tire determines the number of wires that are put into each tire (R. 322). The wire comes on large reels about three feet in diameter and the wire on the reels weigh between six and seven hundred pounds. Five of these reels are placed on hubs. The wires pass through a guided die which is the end of a rubber extruding machine. The diameter of the bead is very important as that determines how the bead will fit into the tire so that it will have its proper compression during the cure to give it ultimate strength (R. 324). The beads are inspected after they are wound. They are checked on a gauge for template fit to make sure they are the right diameter, put over a tapered gauge before they are sent to have the bead applied. After the bead wrap has been applied they are then inspected to make sure that the wrap completely covers the insulated wire (R. 328). Tires are designed to fit the rim so that the rubberized material

will compress tightly against the bead seat of the rim, in order to insure a tight fit at all times, to eliminate the possibility of the bead moving and the tube getting under the toe of the bead when the tire is in service (R. 333). Mr. Hoelzer testified that in his opinion it was air pressure which broke the bead (R. 340). He testified that when the tires leave the curing room they are hung on a conveyer which passes through the inspection department. The tires are on a conveyor hanging on a hook which has a cylinder on which the tire can be removed and examined (R. 343). The inspector takes the tire with each hand and goes around the tire to examine the side and at the same time puts force on both beads of the tire. He next goes to the outside of the tire and examines the tire all the way around for defect. If the tire does not pass inspection, he removes it from the hook and puts it onto a pile which passes to another department for further investigation (R. 344). On cross examination Mr. Hoelzer testified that he was describing manufacturing procedures at the General Tire and Rubber Plant at Akron, Ohio, where he transacted his business (R. 344). That he had never visited the plant at Waco, Texas, where Exhibit 7 was manufactured. He stated that after the tire had been completely assembled, in the form in which it is built on a building drum, it passes inspection, by the inspectors, before traveling on a conveyor to the curing room. At that point the tire is inspected for the evenness of plies and for proper placing of the chafer strips (R. 345). The entire roll of wire is not tested to see if there are any defects. Although there is a supervisory examination

of the wire as it leaves the roll by the inspector. There is an inspector standing by to observe the wire as it leaves the roll to be incorporated in the bead. If the inspector happens to turn away there would be part of the wire that he wouldn't see (R. 346). The inspector who stands by the reels of wire makes a general observation to see how the wire is running and the general condition of the wire. It is important that he observes whether there might be a kink in the wire (R. 347). The tire during the manufacturing process is placed in a mold with a curing bag on the inside. The tire is placed under heat of 297 to 302 degrees Fahrenheit and an air pressure of 250 pounds which is applied for the putting of all of the plies under equal tension, to force the uncured tread into the tread design cavity of the mold, and to vulcanize all of the various plies, flippers, beads, sidewalls and breakers together into an integral mass (R. 351). The raw rubber in the tire is compressed rather than stretched during the curing process. The ability of the tire-tube combination to withstand air pressure is the responsibility of the casing primarily (R. 352). After the curing process is completed, the bag is removed by a bag remover machine where the tire is on an angle and a hook comes up, lifts back and pulls the bag out as the tire tips over. The hooks are round and three fingers broad, and are about twelve inches apart. They are operated entirely by a mechanical device (R. 353). It is sometimes called a hydraulic extractor, but it is sometimes powered by air. The extent of power that is exerted by this extractor in pulling the bag out depends upon the amount of energy that is

applied to it by the hydraulic mechanism that supplies the force. If the bag extractor mechanism is not functioning properly it is possible for it to do damage to the bead of the tire. In the witness' experience, it has kinked the beads and the kink has weakened the strength of the bead so that tires have been scrapped. The kink has been discovered by visual observation. A lot of tires are thrown out at the bag extracting machine. If the person who is at the extractor doesn't happen to notice the defect of the bead it goes through another inspection which is the final inspection (R. 355). If there is a kink that hasn't been picked up at the extractor, he will see it if he does his job. If the majority of the wires were broken they could be detected by the final inspection (R. 356).

The tire, Exhibit 7, was manufactured at Waco, Texas, which is ascertainable from the serial number. The witness, Mr. Hoelzer, had never been to the General Tire and Rubber Company Factory at Waco (R. 363). The witness could not, therefore, testify of his own knowledge as to whether any inspection was actually made of Exhibit 7 during the manufacturing process (R. 364). It would be fair to say that all the witness Hoelzer knew was the tire manufactured at Waco, Texas, was supposed to be made on the same specifications in the same manner and with the same inspections as applicable to the factory at Akron (R. 371).

The witness K. D. Smith testified that he was Vice President of the National Standards Company which manufactured bead wire (R. 374). The wire used in

Waco, Texas, was first shipped to the plant at Akron, Ohio (R. 377). The witness, Mr. Smith, on cross examination stated that they have plenty of reject wire in their manufacturing process (R. 389). There is a lot of it that is unsuitable for the purpose for which it was designed and it takes quite a bit of supervision and inspection that involves the right strength of the wire (R. 390).

The witness Dr. Linford on rebuttal testified that he was of the opinion that the pinching of the tube under one bead could not have contributed to the failure of the bead significantly, and he explained his reasons by making computations (R. 413, 414). A new tube inflated to an average diameter to fit the tire contains about 1.1 pounds pressure so that the tube is unimportant so far as supporting 155 pounds of air pressure is concerned in the breaking of the bead (R. 423). There has to be a flaw in the bead before the tube itself would break (R. 424).

STATEMENT OF POINT UPON WHICH APPELLANT RELIES

I.

The court erred in setting aside the verdict and judgment entered thereon in favor of the appellant and in entering judgment in favor of the respondent, no cause of action, notwithstanding the verdict.

ARGUMENT

Inasmuch as the court's order in granting judgment of no cause of action, notwithstanding the verdict in favor of the appellant attacks the sufficiency of the evidence to justify the verdict, we have heretofore set forth under the statement of facts, an extensive summary of the evidence from which it clearly appears that the respondent was negligent in the manufacture of the tire involved in this action, and that as a result of that negligence, the appellant was injured.

To justify the ruling of the trial court in granting the motion for directed verdict and giving judgment of no cause of action against the appellant notwithstanding the verdict it must appear that there was no evidence reasonably supporting the jury's finding of negligence. It was so stated in *Morby v. Rogers* (Utah), 252 P. 2d 231:

“It is well settled that in order for a court to grant a request for a directed verdict or for a judgment notwithstanding the verdict grounded on non-negligence of defendant, the record must disclose no evidence against the party so requesting upon which reasonable minds could find him guilty of the negligence charged.”

The evidence amply sustains the verdict. In the first place, it was stipulated by the respondent that the tire was a new tire and had not been mounted before (R. 186). It is further undisputed in the evidence and admitted by the respondent that the x-rays taken of the tire showed that all 20 of the wires in the bead were broken.

The plaintiff testified that he had used standard procedures in mounting the tire, and had done nothing which could possibly have damaged the wires in the bead. There was no evidence of external damage or scuffing of the tire at all to put the plaintiff on notice that there was a break in the bead (R. 172). He checked the air which he had put in the tire after it was mounted and measured it with a gauge, which showed it contained between 30 and 34 pounds of air pressure (R. 177). He intended to put 40 pounds of air into the tire because it was to be carried as a spare, and the moment that he connected the air hose to the valve stem there was a violent explosion. He expressed his opinion that there was in the neighborhood of 38 pounds of air in the tire at the time of the explosion, and his estimate was backed up by a lot of experience in inflating tires and measuring their air pressure (R. 185, 186). It was stipulated and admitted by the respondent that each of the 20 wires in the bead should withstand a pull of 290 pounds and the combined strength of the 20 wires would resist a 5,600 pound pull before breaking. It was further stipulated that it would take 155 pounds of air pressure to break the wires (R. 275, 276, 277). It is important that the bead of a tire be not defective as it is the wire cable in the bead which enables the bead to withstand the force of air pressure so that the bead is not pulled away from the rim to allow the tube to get underneath. The respondent stated that a tire similar to the defective tire was tested on a bull dozer which showed a strength in the bead of approximately 5,600 pounds, and that a tire of similar quality and construction was subjected to test

and the bead broke and blew off the rim at 155 pounds of air pressure (R. 283, 284). Dr. Linford testified that if the tire was properly mounted and 35 pounds of air pressure put into it, the explosion was caused by a flaw in some or all of the wires composing the bead cable (R. 301).

The witness for the respondents, William F. Hoelzer, who is the manager of Technical Service for the respondent at Akron, Ohio, described the method of tire manufacture and stated that during the manufacturing process the bead wires are inspected (R. 328). He also stated that when the tires leave the curing room they are hung on a conveyor which passes through an inspection room (R. 343). The inspector takes the tire with each hand and goes around the tire to examine the inside and at the same time puts force on both beads of the tire (R. 344). There is no dispute in the evidence that the weakness in the broken bead can be discovered by merely flexing the tire at the point of weakness with the hand. He also testified that an inspector stands by to observe the wires as they leave the spool to be incorporated in the bead, and if the inspector happens to turn away there would be part of the wires that he wouldn't see. It is important that the inspector observe whether there might be a kink in the wire (R. 346, 347). After the curing process, if the bag extractor is not functioning properly, it is possible for it to damage the bead of the tire. He stated that, in his experience, this machine has kinked the beads and has weakened the strength of the bead so that tires have been scrapped. He stated that

the kink is discoverable by visual observation, and that a lot of the tires are thrown out at the bag extracting machine. If the person who is at the bag extractor doesn't happen to notice the defective bead, the tire goes through another inspector (R. 355). If there is a kink which hasn't been picked up at the extractor, the final inspector will see it if he does his job (R. 356). Of course, Mr. Hoelzer acknowledged that the tire, Exhibit 7, was manufactured at Waco, Texas, and that he had never been to the factory at Waco, so that he could not, of his own knowledge, state whether any inspection was actually made of Exhibit 7 during the manufacturing process, but he stated that such inspections were supposed to be made (R. 363-364).

Another expert produced by the respondents testified that he was the vice president of the National Standards Company, which manufactured the bead wire used by the respondent in the manufacture of the defective tire (R. 374-377). He also stated that they had plenty of rejected wire in their manufacturing process (R. 389), and that it takes quite a bit of supervision and inspection in order to produce wire of the right strength (R. 390).

A witness for the appellant, Dick Rogers, testified that he had obtained for appellant Exhibit 12, and that he tried to break the bead of the tire by pounding with Exhibits 23 and 24. He carried on a sustained pounding of the bead with those exhibits for about 30 minutes in the area bounded by the two pieces of tape (R. 259). After this pounding had been done, Dr. Winter x-rayed the experimental tire and the x-ray showed no irregu-

larities in the bead wire in the area where the casing was damaged and broken by the pounding experiment (R. 128, 130).

In ruling that there was insufficient evidence to show that the tire was negligently manufactured, the trial court must necessarily have disregarded all of this evidence. It is clear from the evidence that the bead in the tire was defective and that the tire was incapable of withstanding less than 40 pounds of air pressure. There was nothing in the handling of the tire before or after it came into the possession of the appellant to be mounted on the wheel that could have possibly damaged the tire after it left the factory. The only way that the beads in the tire could have been broken after they left the factory and before they came into the possession of the plaintiff would have been for someone to have taken this new tire, hitched a bull dozer up to it and applied 5,600 pounds pressure, or else placed a new tire on a wheel and put in 155 pounds, at the risk of life and limb, to break the bead, then, after breaking it, by either of such methods returning it to the supplier or the Granite Furniture Company. Such inference is not only unreasonable; it is silly. It would be foolish to assume that someone without any motive whatsoever would take this tire and apply the tremendous force necessary to break it and then return it. The only reasonable inference, therefore, is the tire was defective when it left the factory. There is nothing in the ordinary handling or mounting of the tire that could have possibly accomplished the breaking of the bead. The tire was designed

to withstand an air pressure of 155 pounds, if it were not defective, and it broke when the normal air pressure of between 35 and 40 pounds was introduced into it.

This court is thoroughly familiar with the landmark case of *MacPherson v. Buick Motor Co.*, 217 N. Y. 382, 111 N. E. 1050. That decision involved a defective wheel on an automobile which collapsed while the automobile was being operated and injured the plaintiff. We quote from the decision beginning at page 1053:

“We hold, then, that the principle of *Thomas v. Winchester* is not limited to poisons, explosives, and things of like nature, to things which in their normal operation are implements of destruction. If the nature of a thing is such that it is reasonably certain to place life and limb in peril when negligently made, it is then a thing of danger. Its nature gives warning of the consequences to be expected. If to the element of danger there is added knowledge that the thing will be used by persons other than the purchaser, and used without new tests, then, irrespective of contract, the manufacturer of the thing of danger is under a duty to make it carefully. That is as far as we are required to go for the decision of this case. There must be knowledge of a danger, not merely possible, but probable. It is possible to use almost anything in a way that will make it dangerous if defective. That is not enough to charge the manufacturer with a duty independent of his contract. Whether a given thing is dangerous may be sometimes a question for the court and sometimes a question for the jury. There must also be knowledge that in the usual course of events the danger will be shared by others than the buyer. Such knowledge may often be inferred from the nature of the transaction. But it is possible that even

knowledge of the danger and of the use will not always be enough. The proximity or remoteness of the relation is a factor to be considered. We are dealing now with the liability of the manufacturer of the finished product, who puts it on the market to be used without inspection by his customers. If he is negligent, where danger is to be foreseen, a liability will follow. * * *

“* * * There is here no break in the chain of cause and effect. In such circumstances, the presence of a known danger, attendant upon a known use, makes vigilance a duty. We have put aside the notion that the duty to safeguard life and limb, when the consequences of negligence may be foreseen, grows out of contract and nothing else. We have put the source of the obligation where it ought to be. We have put its source in the law.

“From this survey of the decisions, there thus emerges a definition of the duty of a manufacturer which enables us to measure this defendant's liability. Beyond all question, the nature of an automobile gives warning of probable danger if its construction is defective. This automobile was designed to go 50 miles an hour. Unless its wheels were sound and strong, injury was almost certain. It was as much a thing of danger as a defective engine for a railroad. The defendant knew the danger. It knew also that the car would be used by persons other than the buyer. This was apparent from its size; there were seats for three persons. It was apparent also from the fact that the buyer was a dealer in cars, who bought to resell. The maker of this car supplied it for the use of purchasers from the dealer just as plainly as the contractor in *Devlin v. Smith* supplied the scaffold for use by the servants of the owner. The dealer was indeed the one person of whom it

might be said with some approach to certainty that by him the car would not be used. Yet the defendant would have us say that he was the one person whom it was under a legal duty to protect. The law does not lead us to so inconsequent a conclusion. Precedents drawn from the days of travel by stagecoach do not fit the conditions of travel today. The principle that the danger must be imminent does not change, but the things subject to the principle do change. They are whatever the needs of life in a developing civilization require them to be."

Again on page 1054 the court held:

"In this view of the defendant's liability there is nothing inconsistent with the theory of liability on which the case was tried. It is true that the court told the jury that 'an automobile is not an inherently dangerous vehicle.' The meaning, however, is made plain by the context. The meaning is that danger is not to be expected when the vehicle is well constructed. The court left it to the jury to say whether the defendant ought to have foreseen that the car, if negligently constructed, would become 'imminently dangerous.' Subtle distinctions are drawn by the defendant between things inherently dangerous and things imminently dangerous, but the case does not turn upon these verbal niceties. If danger was to be expected as reasonably certain, there was a duty of vigilance, and this whether you call the danger inherent or imminent. In varying forms that thought was put before the jury. We do not say that the court would not have been justified in ruling as a matter of law that the car was a dangerous thing. If there was any error, it was none of which the defendant can complain.

"We think the defendant was not absolved

from a duty of inspection because it bought the wheels from a reputable manufacturer. It was not merely a dealer in automobiles. It was a manufacturer of automobiles. It was responsible for the finished product. It was not at liberty to put the finished product on the market without subjecting the component parts to ordinary and simple tests. *Richmond & Danville R. R. Co. v. Elliott*, 149 U. S. 266, 272, 13 Sup. Ct. 837, 37 L. Ed. 728. Under the charge of the trial judge nothing more was required of it. The obligation to inspect must vary with the nature of the thing to be inspected. The more probable the danger the greater the need of caution.”

The principles of the *Cardoza* decision are clearly applicable here. It was reasonably foreseeable that the tire would be mounted upon a wheel and that it would be inflated with the air pressure introduced into it by the plaintiff. It was reasonably foreseeable that the tire with its defective bead would not have the requisite strength to withstand the terrific force involved in normal air pressure, and that the defective bead would snap or give away and slip over the rim, permitting the tube to protrude and the air to escape in a jet blast. It was reasonably foreseeable that the plaintiff, as a service station mechanic, would be called upon to mount the tire and would be subjected to grave danger to his life and limb when the tire exploded. This danger was accentuated by the fact that there was no external evidence on the apparently new tire to warn the plaintiff of the threat to his bodily safety lurking within the defective bead.

There were several inspections that should have been made during the course of the manufacture of the

tire before it was placed upon the market, which would have disclosed the danger to the respondent which was concealed from the unsuspecting appellant. No one was brought from the factory where this tire was made to explain the manner in which this duty was discharged. The gentleman from Akron simply testified as to what should have been done—not what was done.

In the very recent case of *Hooper vs. General Motors Corporation*, (Utah), 260 P. 2d 549, this court has again followed the overwhelming weight of authority in adopting and applying the principle of the famous case of *MacPherson vs. Buick Motor Company*, supra. The plaintiff in the Hooper case was injured when the recently purchased pick-up truck she was driving overturned. She charged that the defendant negligently assembled, manufactured and inspected the truck which she had purchased some three months previously from a dealer in Ely, Nevada. She claimed that the truck was equipped with a defective left rear wheel which caused the accident. After the accident, the spider and the rim of the left rear wheel were found completely separated although the spider remained bolted to the axle drum. The rim, with the tire mounted, though flat, was lying on the ground. Worn and shiny spots appeared on the underside of four adjacent left holes in the rim which indicated under the expert testimony that there had been wear at those points, and further indicated that there had been loose rivets which permitted movement between the spider and rim over a considerable period of time prior to the accident. In that case, as in the case at bar,

the defendant produced witnesses as to the manufacturing and inspection procedures of the wheel manufacturer and of the defendant's assembly plant, except in the case at bar, the defendant's expert had never been to the plant where the tire was manufactured. Another expert witness for the defendant testified that in his opinion the wheel was struck by an extremely heavy blow which caused the spider to distort and shear off the rivets. With the evidence in this condition, the court gave an instruction to the effect that the fact that the rim and spider were found in a separated condition after the accident was no evidence of the fact that they were defective, unsound or safe when assembled by the defendant, nor was it evidence of the fact that the operating of the rim and spider caused the truck to go out of control and overturn.

The court held such instruction to be erroneous and prejudicial stating as follows:

"It is well settled that the assembler of an automobile, who purchases wheels from a manufacturer, is liable to one who purchases a car from a retailer for an injury caused by the collapse of a wheel because of defects which would have been discoverable by reasonable testing or inspection. *McPherson v. Buick Motor Co.*, 217 N. Y. 382, 111 N. E. 1050, L.R.A. 1916F 696.

"Thus, to impose liability on an assembler of an automobile certain necessary elements must be made out. Plaintiff is required to show: (1) A defective wheel at the time of automobile assembly; (2) Such defect being discoverable by reasonable inspection; (3) Injury caused by failure of the wheel due to its defective condition.

“Contrary to the instruction as given, the undisputed fact of post accident rim-spider separation may be (1) Some evidence of a defective wheel at the time of automobile assembly and, (2) Some evidence of accident causation. Thus the effect of the above quoted instruction was to unduly narrow the evidentiary base from which the jury could infer two of the requisite elements of plaintiff’s cause. It may be that the mere separation of the spider from the rim, standing as an isolated fact, would be an insufficient factual basis for an inference that the wheel was defective at the time it was assembled on the truck. However, when viewed in relation to other evidentiary facts—namely, the worn shiny spots on the undersurface of the wheel rim; the expert testimony to the effect that such shininess indicated smoothness and wear over a considerable length of time, (the wear indicated loose rivets; loose rivets would have permitted vibration and oscillation between the component parts of the wheel and that three loose rivets could cause the ultimate failure of such a wheel); the age of the truck; the fact that it had gone but 6700 miles; the fact that it had no record of prior damage; the description of the mishap by plaintiff above quoted; then the fact of rim-spider separation may have provided the requisite force to tip the scales in favor of plaintiff. Certainly, reasonable men from the cumulative factual total could infer, and with the consideration of rim-spider separation may have inferred, that the wheel was defective at the time of assembly.

“It is not enough to say, that though the instruction be incorrect, the fact of rim-spider separation was so implicit in all the evidence that no prejudice resulted to plaintiff. The instruction as given withdrew from the jury a fact which was

some evidence of two requisite elements of plaintiff's cause. It would be pure conjecture to say that the jury ignored the instruction. If the fact of rim-spider separation is said to be implicit in all of the evidence the instruction as given may have had the effect of causing the jury to ignore all of the evidence relating thereto to the prejudice of plaintiff.

“The same reasoning applies in relation to the issue of accident causation. See *Hupp Motor Company v. Wadsworth*, 113 F. 2d 827; *General Motors Corporation v. Johnson*, 137 F. 2d 320.”

To the same effect are the following cases: *General Accident Fire and Life Insurance Company, Ltd. v. General Tire and Rubber Company*, 132 Fed. 2d 122, which involved a defective tire rim which blew off a wheel and killed a man; *Spencer v. Madsen*, C.C.A. Tenth, 142 Fed. 2d 820, which involved a defective axle on a semi trailer designed to transport gasoline; *General Motors Corporation v. Johnson*, C.C.A. Fourth, 137 Fed. 2d 320, which involved a defective axle housing which caused a wreck in which two men were killed. The court stated at page 322:

“The overwhelming weight of authority is to the effect that the manufacturer of a truck, like the one here in question, owed a duty to the public, irrespective of contract, to use reasonable care in its manufacture and to make reasonable inspection of the construction in the plant where the truck was manufactured.

“It seems clear from the evidence that either reasonable care in the construction would have avoided the defect or reasonable care in the

inspection of the truck would have disclosed the condition that evidently existed.”

In the case at bar, had the respondent used ordinary care in the construction of Exhibit 7, the tire would not have been manufactured with a defective bead. If respondent had used ordinary care in the inspection of Exhibit 7 before placing it on the market, the defect in the bead could have been readily detected. It is, therefore, clear that the respondent was negligent in both respects. The nature of the defect in the tire was such as to make it reasonably certain that the tire was defective before it left the factory. A bead which has a resistance strength of 5,600 pounds and does not break until subjected to 155 pounds of air pressure is not fragile and there is nothing in the handling of the tire between the factory and the consumer that could break those bead wires without showing external evidence of abuse of the tire. The statement of facts sets forth evidence to the effect that a heavy and sustained pounding with a large steel hammer upon the bead in one place for a period of a half hour, which mangled the cord of the tire, was totally ineffectual to damage the bead wires at all. The only way that the wires in that bead could have been broken, if they were not defective, before the tire came into the hands of the appellant, would have been for some stranger to have taken it upon himself to mount the tire upon a wheel and to subject it to 155 pounds of air pressure. We do not conceive it to be necessary for appellant to negative this extremely remote and unlikely occurrence.

As a matter of fact, the respondent admits that the tire was new and had never been mounted before, which sufficiently negatives the possibility that the tire could have been damaged after it left the factory and before it came into the hands of the appellant, particularly when this admission is considered together with the statement of the respondent's expert, Mr. Hoelzer, to the effect that it was his opinion that the bead wires were broken by air pressure. In this record there is no evidence that exorbitant air pressure was ever introduced into this tire. As a matter of fact the evidence is uncontradicted that the air pressure introduced into the tire did not exceed 40 pounds. The inference, therefore, is not only reasonable, but compelling that the tire was defective in the bead before it left the factory. It is clear from the evidence that the defect in the bead can be determined by the simple manuel flexion of the bead. The evidence shows that during the manufacturing process there is an inspector who is assigned to the duty of flexing these tires manually to detect the very flaw which was present in Exhibit 7. The conclusion is irresistible that he failed in the discharge of that duty. His failure was preceded by the failure of the inspection at the bag extractor machine. There were also previous inspections which should have been made of the wire which, if they had been reasonable, or proper, would have detected the flaw in the tire, if the flaw existed previous to the removal of the tire from the mold after the curing process was completed. The respondent's claim that there was no negligence in the manufacture or inspection of the tire was not furthered by the testimony of the expert witness,

Mr. Hoelzer. They produced a witness from Akron, Ohio, who had never been to Waco, Texas, for the purpose of showing that proper procedures were followed, which the witness had never seen. He, himself, acknowledge *ex necessitate* that the most he could say was what should have been done in Texas, not what was done. Neither was the respondent benefited by importing the official of the wire manufacturing company. The most significant thing he said was that there is a lot of reject wire. There was evidence that his company furnished all the bead wire which was used by the respondent, but there was no definite testimony that the particular wire which was used by the respondent in the manufacture of Exhibit 7 was ever inspected and determined to be without flaw. While a bead wire is insulated and enclosed within the stout cord of the bead, it is more difficult to damage by application of external violence. The wire is not so exempt from damage in its handling before it is incorporated into the bead. The respondent's evidence shows that the wire comes on large reels about three feet in diameter, and that the wire on the reels weigh between 600 and 700 pounds so that it is obvious that some machinery has to be used in the handling of the wire, not once, but several times, because these heavy reels of wire were delivered to the factory at Akron and then later sent to the factory at Waco, Texas. Of course, the respondent's expert testified that while the tire was still warm at the time of the bag extractor's operation, the wire was susceptible of being kinked. The kink weakens the strength of the bead requiring the scrapping of the tire. He also stated that the kink was discoverable by

visual observation at that point and that a lot of tires are thrown out at the bag extractor machine. The witness Mr. Hoelzer recognized the importance of the bead being constructed so as to insure a tight fit against the seat of the rim to eliminate the possibility of the bead moving and the tube getting under the toe of the bead. All the evidence clearly shows—and the respondent cannot dispute it—that the ability of the tire to contain the tremendous force involved in the usual amount of air pressure and to remain on the rim under such conditions is entirely dependent upon the strength of the bead.

The principles of the *MacPherson v. Buick* case, supra, were adopted by the Restatement. See *Restatement of Torts, Sec. 395, Negligent Manufacture of Chattel; Dangerous Unless Carefully Made*.

“A manufacturer who fails to exercise reasonable care in the manufacture of a chattel which, unless carefully made, he should recognize as involving an unreasonable risk of causing substantial bodily harm to those who lawfully use it for a purpose for which it is manufactured and to those whom the supplier should expect to be in the vicinity of its probable use, is subject to liability for bodily harm caused to them by its lawful use in a manner and for a purpose for which it is manufactured.

Baker vs. B. F. Goodrich Company, (Calif.), 252 P. 2d 24. That case is very similar to the case at bar. In that case the plaintiff was injured when a new tire exploded while he was engaged in mounting it. The plaintiff was a service mechanic for an automobile agency and the tire had been purchased a year prior to the accident.

Upon their arrival at the purchaser's premises, the tires were placed in a rack. During the tire changing operation, the plaintiff was observed checking the air pressure with a gauge several times. The tire was designed to withstand a maximum pressure of from 168 to 170 pounds and to customarily carry 30 pounds. The plaintiff was unable to give any testimony in the case. He was rendered mentally incompetent by the accident and had suffered a loss of memory. After the accident, an examination of the tire disclosed that one of the beads were entirely broken, giving it appearance of having been cut right through, and within the bead the twenty steel wires were also all broken. The tire bore no evidence of scuffs or scars, or any marks which could have been caused by the use of a tire iron in mounting it. There was expert testimony to the effect that the bead wires at the point of the break were kinked, and that this could have been caused in the process of manufacture when the tire was taken out of the mold by the hydraulic extractor, or by the stripper when pulling the air bag out of the tire. A bead, if it breaks at all, will break at the kink and all the wires can be broken in the course of manufacture without showing on the outside of the tire. As in the case at bar, there was evidence in that case that a broken wire in the bead would be detected without cutting into the tire or bead by manipulating the bead, and the part of a broken or kinked bead can be determined by inspection by feeling around the outside of the tire. In that case, the California court held that the doctrine of *res ipsa loquitur* was applicable. We read from page 29 of the decision:

“We are of the view that the evidence in the case at bar which we have set forth at some length may reasonably be said to justify an inference (if drawn by the jury) that the defective condition of the bead was the cause of the explosion and that appellant’s conduct did not contribute thereto. At the outset appellant, by reason of his incompetency and loss of memory, was entitled to the benefit of the presumption that in mounting and inflating the tire he was exercising due care. *Scott v. Burke*, Cal., 247 P. 2d 313. Aside from this there was testimony, as already noted, that the tire bore no evidence of rough usage and was devoid of any marks that could have been made by the use of the tools which appellant employed in mounting it; that it would be impossible to break a good bead with a tire iron such as that used by appellant; that the break in the bead could not have been occasioned by the pressure of the air introduced into the tire which was designed to withstand a pressure considerably greater than that of which the compressor used for this purpose was capable of producing, and that the break occurred at a place where an inspection of the tire disclosed that the wires were kinked. With this evidence before it, the jury could reasonably conclude that appellant was not negligent, or, if so, that such negligence did not contribute to cause the accident. True, there was evidence to the contrary from which the jury might reasonably infer that the tire was not defective and that the explosion and resultant injuries to the appellant were caused by the improper manner in which he undertook to mount and inflate the tire. This, however, but created a conflict which it was within the province of the jury to resolve and did not in and of itself remove *res ipsa loquitur* from the case.

“ * * * ”

“Here, however, as in the *Escola* case, there is expert testimony as to the cause of the accident in question, but this is in sharp conflict. Upon the one hand it is made to appear that the explosion occurred because of the breaking of a defective bead and that the bead could not have been broken by the use of any of the tools employed by the appellant in mounting the tire or inflating it. On the other hand there is evidence that the bead could not have been broken during the process of manufacture, and that the only reasonable explanation is that the bead was broken by the appellant in the process of mounting the tire either by pressure exerted upon it or that the breaking of the bead was occasioned by the negligent manner in which the appellant mounted the tire as a result of which the tube was pinched between the tire and the rim resulting in pressure being exerted against the bead. We cannot undertake to say that either of these views is inherently improbable or unworthy of belief nor may we usurp the function of the trier of fact and undertake to weigh the testimony with the view of determining which is entitled to the greater weight. ‘That conclusion is not for the court to draw, or to refuse to draw so long as there is enough to permit the jury to draw it; and even though the court could not infer negligence, it must still leave the question to the jury where reasonable men may differ as to the balance of probabilities.’ Prosser op. cit. 38 Cal. Law Review, 194.”

CONCLUSION

The evidence in the case at bar provides a much stronger factual basis for a finding of negligence on the part of the manufacturer than did the facts in *Hooper*

vs. General Motor Corporation, supra, for, while in that case, the truck had been driven some 6700 miles before the wheel collapsed, in the case at bar, the defective tire was stipulated to be new and to have never been on a vehicle before it was mounted by the appellant. The bead wires, insulated as they were, within the bead of the tire were not susceptible of being easily broken by the roughest type of handling as is evidenced by the fact that the sustained pounding of the bead on the experimental tire for a half hour in one place, though it mangled the bead externally, was wholly ineffectual to damage the bead wires at all.

The evidence presents the picture of a tire designed under its own specifications to withstand an air pressure of 155 pounds before breaking, but destined to explode in the face of the first person who would attempt to mount that tire upon a wheel and introduce into it the recommended air pressure. It is difficult to conceive of a clearer negligence situation. The manufacturer of that tire, the respondent, certainly owed a duty to the unsuspecting mechanic who would be first called upon to mount the tire upon a rim, to take reasonable precautions in the manufacture and inspection of that tire to protect him from the danger to his life and limb inherent in the defective bead. With the evidence and the reasonable inferences therefrom pointing irresistibly to the breach of that duty, the respondent should not be permitted to escape liability for the foreseeable consequences of its breach of duty, by simply explaining what should have been done instead of what was done, or by

relying upon incredible and remote possibilities far removed from the realm of reason and likelihood.

We respectfully submit that consistent with its decision in the *Hooper vs. General Motors* case, supra, this court should reverse the order of the trial court setting aside the verdict and granting a motion for a directed verdict, and that this court should enter its order giving appellant judgment on the verdict rendered by the jury in this cause.

Respectfully submitted,

WOODROW D. WHITE

*Attorney for Plaintiff
and Appellant.*