

In the
United States Court of Appeals
For the Seventh Circuit

No. 06-3773

JOHN MESMAN and JUDY MESMAN,

Plaintiffs-Appellants,

v.

CRANE PRO SERVICES, a division of KONECRANES, INC.,

Defendant-Appellee.

Appeal from the United States District Court
for the Northern District of Indiana, Hammond Division.
No. 2:99 CV 428—**Paul R. Cherry**, *Magistrate Judge*.

ARGUED SEPTEMBER 5, 2007—DECIDED JANUARY 2, 2008

Before POSNER, RIPPLE, and ROVNER, *Circuit Judges*.

POSNER, *Circuit Judge*. This products-liability case is before us for the second time. 409 F.3d 846 (7th Cir. 2005). Federal jurisdiction is based on diversity of citizenship, and the tort issues are governed by Indiana's products-liability statute and its common law of torts. John Mesman, an employee of a manufacturer of steel products named Infra-Metals, was gravely injured when a load of steel sheets that he was unloading from a boxcar fell on him from the crane that was lifting the sheets out of the boxcar. He brought suit under the products-liability law against

the firm that had rebuilt the crane, Konecranes. A jury awarded the plaintiffs (Mesman and his wife) \$5.6 million, based on its judgment that Konecranes was one-third responsible for the accident and Infra-Metals—which Mesman could not join in the suit because it was his employer—two-thirds responsible. But the judge set the verdict aside and entered judgment for the defendant. She further ruled that if she was wrong in doing this the defendant was entitled to a new trial because the jury had been confused by irrelevant evidence and had ignored critical instructions. We reversed the judgment for the defendant but affirmed the order for a new trial. The case was retried and this time the jury returned a verdict for the defendant. The magistrate judge presiding at the retrial refused to set the verdict aside. Hence this second appeal, which is by the plaintiffs.

The crane that was the instrumentality of the accident consisted of the following parts: a beam fastened to the ceiling directly above a rail siding; a hoist, suspended from the beam, which the crane's operator could move sideways along the beam, as well as up and down to do the lifting; another beam, the "spreader beam," connected to the hoist; chains connecting each end of the spreader beam to "scoops" for gripping the load; and, attached to the beam on the ceiling, an operator's cab. When a boxcar was unloaded underneath the section of the ceiling beam to which the cab was attached, there was only a foot or two of clearance between the rim of the boxcar and the cab. If while being lifted by the hoist the spreader beam struck the cab, the load might be jarred loose and fall, hitting anyone beneath it.

Infra-Metals hired Konecranes to rebuild the crane, which was nearly 50 years old. Konecranes was to supple-

ment the controls in the operator's cab with a hand-held remote-control device that would enable the crane to be operated from ground level. To raise the load the operator would press the up button on the remote and to lower it he would press the down button. Alongside those buttons was an emergency-stop button so that if the operator sensed an impending collision between the load and the cab he could bring the hoist and spreader beam to a dead stop. Alternatively, by pressing the down button he could reverse the direction of the hoist; but because the up and down control had a deceleration feature to reduce wear and tear on the crane, the hoist and therefore the spreader beam would continue to rise for as many as three seconds (if the crane was being operated at its top speed) after the down button was pressed. In that interval the hoist would traverse about a foot until it stopped and began its downward motion; so pressing the down button would not arrest the upward motion of the hoist as fast as pressing the emergency-stop button would.

Konecranes also built into the renovated crane a limit switch that would automatically stop the spreader beam when it came too near the beam in the ceiling. But the switch was set to prevent the spreader from touching that beam only when the cab, the floor of which was of course lower than the beam from which the cab hung, was not over the spreader. To prevent the spreader from touching the cab when it was underneath it, the limit would have had to be set much lower—too low for convenient unloading of boxcars that were underneath any other section of the beam. Thus, as set, the limit switch did nothing to prevent a collision between the load and the cab.

On the day of the accident, the employee of Infra-Metals who operated the crane was standing at ground level about 20 feet away from a boxcar that was underneath the cab. Mesman, standing in the boxcar, fastened a load of steel sheets to the scoops beneath the spreader beam. The operator pressed the up button on the remote. As the beam and load rose, he saw that the spreader beam was going to hit the cab. But instead of pressing the emergency-stop button, as he should have done to bring the rising load to a dead stop, he pressed the down button. Because of the deceleration feature, the spreader beam continued to rise for three seconds, hitting the cab and causing the load to fall on Mesman.

Had Konecranes, when it renovated the crane, removed the cab, eliminated the deceleration feature, or modified the limit switch so that the limit could be lowered when a load was being unloaded beneath the cab, the accident would have been avoided: with certainty in the case of either of the first two modifications but less certainly in the case of the third modification—making the limit switch adjustable—since the operator might neglect to adjust it. So a better safety device would have been an electronic eye or other electronic sensor that would have stopped the hoist automatically when the spreader beam was dangerously close to the underside of the cab. Such a device would have been proof against human error or inattention. But the parties have not discussed that possibility.

The Indiana Products Liability Act makes a design defect actionable only if there is negligence in the design. Ind. Code § 34-20-2-2. The risk of a heavy load falling on a worker if the spreader beam struck the cab was substantial because of the narrow clearance, and if the load

did fall on someone it would be likely to kill or seriously injure him. Loads did fall, especially when cold weather made the steel sheets being unloaded slippery and therefore more likely to slide out of the scoops. The part of the plant where the sheets were unloaded from rail cars was open to the elements, and the accident to Mesman occurred on a very cold winter day. One or two loads had already fallen that day before the accident, though no one had been hurt.

But in a negligence case the risk of injury has to be weighed against the cost of averting it. In Judge Learned Hand's negligence formula, failure to take a precaution is negligent only if the cost of the precaution (what Judge Hand called the "burden" of avoiding the accident) is less than the probability of the accident that the precaution would have prevented multiplied by the loss that the accident if it occurred would cause. *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947) (i.e., $B < PL$). In other words, the cheaper the precaution, the greater the risk of accident; likewise, the greater the harm caused by the accident, the likelier it is that the failure to take the precaution was negligent.

The risk could have been eliminated by removing the cab, which was no longer required for the operation of the crane. Konecranes recommended that to Infra-Metals but Infra-Metals declined because it wanted the option of being able to operate the crane from within the cab. Alternative precautions, besides making the limit switch adjustable, would have included eliminating the deceleration feature on the remote control, so that pressing the down button while the spreader beam was rising would have brought the hoist to an immediate stop. But this would not have been an ideal solution either, be-

cause without the deceleration feature the crane would wear out sooner. The same drawback would have attended another precaution—reducing the period of deceleration from three seconds to one, which would have stopped the spreader beam within four inches after the down button was pressed rather than twelve. Still another possibility would have been an additional automatic limit switch, one operative only when the unloading was taking place directly under the cab. And another might have been the “idiot proof” safety device that the parties do not discuss.

The only really contestable issue in the case, we said in our first opinion, was whether any precaution was necessary besides the emergency-stop button, since, had the operator pressed it instead of the down button, the accident would not have occurred. Konecranes argued that by pressing the down button the operator had exposed Mesman to a danger that was “open and obvious” to the operator, and that a defendant should not be liable for accidents resulting from open and obvious dangers. But while it indeed used to be the law that manufacturers had no obligation to protect against “open and obvious” dangers, Indiana has replaced the “open and obvious” defense with a defense (“incurred risk”) that requires that the user of the product (in this case the operator of the crane) have actually been “aware of the danger in the product.” Ind. Code § 34-20-6-3. The fact that a risk is open and obvious remains relevant to liability. It is circumstantial evidence that the user knew of the danger and thus “incurred” the risk. But it also bears on the question whether the risk was great enough to warrant protective measures beyond what the user himself could be expected to take. Suppose a machine is designed with no shield over

its moving parts. It is obvious to the operator that if he sticks his hand into the machine while it is operating, the hand will be mangled. In the old days that would have been a complete defense to a suit for products liability. But the Indiana statute recognizes that because of inadvertence or other human error, or because of debris or a slippery surface that might cause a worker to trip, or even because of a distracting noise or a sudden seizure, open and obvious hazards do on occasion result in accidents that are not the product of a *known* risk, obvious though the risk is. If such an accident can easily be avoided by the taking of a precaution by the manufacturer of the machine or by the operator's employer, it should be, and liability provides a prod to adopt the precaution.

Was there so great a likelihood that the operator of the rebuilt crane would fail to press the emergency-stop button when he saw the spreader beam about to hit the cab that Konecranes should have modified the control? The likelihood that the operator would push the wrong button in an emergency, or forget that pushing the down button wasn't as effective as pushing the emergency-stop button because of the deceleration feature, was surely not negligible, and so argued for an automatic protective device, of which probably the cheapest would have been to remove the cab. A jury that concluded that, all things considered, the failure to design the renovated crane in such a way as to protect Mesman against the kind of error that the crane's operator made was negligent could not be thought unreasonable. The entry of judgment for Konecranes in the first trial, overriding the jury's verdict for Mesman, was therefore error.

But we affirmed the judge's decision granting Konecranes a new trial because Mesman's lawyer had failed to put before the jury a clear picture of the cause

of the accident and how it might have been prevented. His principal expert witness, an engineer, had not bothered even to visit Infra-Metals' plant, and the evidence regarding the clearance between the boxcar and the cab had been hazy even though the meagerness of the clearance was the key fact in the case. A "human factors" analyst wasted the jury's time trying to show that the remote should have been made to operate by means of a joystick rather than pushbuttons. The joystick wouldn't have altered the deceleration feature, and there was no reason to think that the crane's operator would be less likely to press the emergency-stop button than to move a joystick.

The retrial was much like the first trial, except that Konecranes was permitted to argue that it could not be responsible under the Indiana Products Liability Act for the dangerous location of the cab because it had not manufactured the crane (of which the cab was a component) but had merely repaired it. The argument should not have been permitted. It is true that the Act does not apply to a repair, but it does apply to a rebuilding—a well-established distinction in products-liability law, e.g., *Lenhardt Tool & Die Co. v. Lumpe*, 703 N.E.2d 1079, 1085 (Ind. App. 1998); *Richardson v. Gallo Equipment Co.*, 990 F.2d 330 (7th Cir. 1993) (Indiana law)—for, if it did not apply, there would be an inefficient incentive to rebuild an old product rather than make a new one. Konecranes rebuilt the crane, altering its design to enable it to be operated from ground level rather than just from the overhead cab.

But the error in allowing the jury to speculate on how far Konecranes' decision to rebuild was subject to the products liability act was inconsequential, because the

plaintiffs were permitted to claim common law negligence, as they had not previously bothered to do. There is no difference, except possibly with respect to the “open and obvious” defense, that is material to this case between common law negligence and negligence under the products liability statute; and we shall see that the “open and obvious” defense turned out not to play a significant role in the second trial.

Mesman complains about the magistrate judge’s refusal to instruct the jury on the Learned Hand negligence formula. This could not be an error, because the judge gave the standard Indiana pattern instruction on negligence, a correct statement of Indiana law that a federal court in a diversity suit is bound by. In any event, the instruction the plaintiffs wanted the judge to give was not the Hand formula, but a garbled version of it: “If you find that in renovating the crane the defendant failed to take effective precautions less expensive than the damages which could reasonably be expected to result from the crane’s foreseeable use or misuse, then you may find the defendant negligent. Even if you determine that the particular failure which occurred was not likely to occur, you may still find the defendant liable if the costs of preventing the harm were lower than the costs of a reasonably foreseeable injury.” The Hand formula requires, as we have seen, discounting (multiplying) the harm if an accident should occur by the probability that it would occur unless a precaution were taken, and then comparing the product of that multiplication to the cost of the precaution. Thus, if the harm from the accident would be very great and the cost of preventing it very low, the defendant might be negligent even if the probability of the accident was also low. That may be

this case. Suppose the probability (P in Hand's formula) were .001, the loss if the accident occurred (L) \$1 million, and the cost of avoiding the accident (B , for burden of precaution) \$500. Then because \$500 is less than \$1 million \times .001 (= \$1,000), the injurer would be adjudged negligent. (The numbers in the example are merely illustrative, of course.) But this was not what the proposed instruction would have directed the jury to consider.

The failure to give the garbled instruction cannot have been a *plain* error since it was not an error at all; and it would have had to be a plain error to get the plaintiffs a new trial, since their lawyer failed to object to the judge's refusal to give the instruction. (That he failed to object is conceded, though there is no record of the instructions conference because the magistrate judge unwisely conducted it off the record. Cf. Fed. R. Civ. P. 51(b)(2), (c)(1); *Maltby v. Winston*, 36 F.3d 548, 560-61 (7th Cir. 1994).) Moreover, while a plain error even in instructions in a civil case is now a basis for reversal, Fed. R. Civ. P. 51(d)(2); *Higbee v. Sentry Ins. Co.*, 440 F.3d 408, 409 (7th Cir. 2006), reversal is not automatic; it is in the discretion of the reviewing court, as the Supreme Court made clear in *United States v. Olano*, 507 U.S. 725, 735 (1993). That was a criminal case, but it provides guidance to the interpretation of the civil plain error rule, which was taken verbatim from the criminal rule a decade after the *Olano* decision. Compare Fed. R. Civ. P. 51(d)(2) with Fed. R. Crim. P. 51(b). *Olano* teaches that a plain error must be corrected if it resulted in a miscarriage of justice, 507 U.S. at 736, and we may assume that the same principle governs civil plain error. But Mesman's case is not so strong that we can say that had it not been for an erroneous instruction he would surely have prevailed at

trial. The Committee Notes to the 2003 Amendments to Fed. R. Civ. P. 51 that added the provision on plain error mentions “the costs of correcting an error” as a factor for the judge to consider in making his discretionary decision whether to reverse on the basis of a plain error, and that is an important factor in this case. In the absence of extraordinary circumstances, a lawyer should not be heard to request a third jury trial on the basis of an instruction (or a failure to instruct) to which he failed to object.

The plaintiffs also complain about the magistrate judge’s refusal to give their proposed instruction on incurred risk. Since they failed to include in the appendix to their brief the instruction on incurred risk approved by the magistrate judge (see *United States v. Thomas*, 150 F.3d 743 (7th Cir. 1998) (per curiam)), failed to include a transcript of the instruction as actually read to the jury, and do not even tell us what the instruction was, we cannot determine whether it was inferior to their proposed instruction.

Another instruction with which the plaintiffs take issue told the jury that “a manufacturer has no duty to warn of *and is not liable for* open and obvious dangers” (emphasis added). Probably the intended meaning is that a manufacturer is not liable for failing to warn of an open and obvious danger rather than that he is not liable for failing to prevent the danger—an interpretation that would be squarely contrary to Indiana law. But it is confusing and shouldn’t have been given. It provides only a feeble basis for reversal, however, especially as the plaintiffs have failed to explain how it is likely to have influenced the jury. The instruction mentions liability for open and obvious dangers, and that is the error; but it foregrounds duty to warn. The plaintiffs had and

took full opportunity to present multiple theories of liability to the jury, including the joystick theory that we rejected in our previous opinion. But they had difficulty meeting Konecranes' effort to shift all responsibility for the accident to Infra-Metals. Konecranes argued that by recommending that Infra-Metals remove the cab, which Infra-Metals refused to do, and by offering training for Infra-Metals' employees on the new decelerator function, which Infra-Metals also declined, Konecranes had done all it could reasonably be expected to do and therefore that Infra-Metals bore all the blame for the accident. For Infra-Metals' insistence on being able to operate the crane from the cab could not plausibly be defended as a safety measure. Placing the control of the crane at ground level may have made it difficult for the operator to gauge the distance between the rising load and the overhead cab. But a person operating the crane from the cab would also have had a hard time gauging the distance between the rising load and the cab. The cab did not have a see-through floor, so the operator's visibility would have been horizontal and diagonal rather than vertical.

Konecranes had convinced the jury in the first trial to place two-thirds of the blame for the accident on Infra-Metals; the second jury may have thought three-thirds a better estimate, thus rejecting the argument that we have just sketched. Not that such apportionments always make sense when the issue is liability rather than contribution among joint tortfeasors. Suppose X could prevent a grievous accident to Z at a cost (much lower than the expected accident cost) of \$1,000, and Y could prevent the accident at a cost of \$500. We would want Y to take the precaution rather than X, but if, as arguably in this case, X

(Konecranes) knows that Y (Infra-Metals) is not planning to take any precaution, then X should do so, if he cannot persuade (or pay) Y to take the cheaper one. *Bacile v. Parish of Jefferson*, 411 So. 2d 1088, 1090 (La. App. 1981); *Taylor v. Paul O. Abbe, Inc.*, 516 F.2d 145, 148 (3d Cir. 1975) (dictum); cf. W. Page Keeton *et al.*, *Prosser & Keeton on the Law of Torts* § 100, pp. 705-06 (5th ed. 1984). It would be different if, as in *Scallan v. Duriron Co.*, 11 F.3d 1249, 1254 (5th Cir. 1994), *Crossfield v. Quality Control Equipment Co.*, 1 F.3d 701, 704 (8th Cir. 1993), and *Childress v. Gresen Mfg. Co.*, 888 F.2d 45 (6th Cir. 1989), X is merely the supplier of a component and has reason to defer to Y's, the final assembler's, judgment concerning the safety of the final product. But that is not this case.

There is an illuminating parallel between the duty just discussed and the abolition of "open and obvious" as a complete defense in a personal-injury case. They are both instances of imposing back-up liability. The worker confronting a danger that is open and obvious should avoid it, but as he may not (possibly without fault on his part—he may have been distracted and as a result was unaware of the risk), the law, by eliminating the defense that the danger was open and obvious, imposes a duty of back-up care on the manufacturer. Similarly, a supplier of a part to an assembler who knows that while his part is not defective it "will be used in a way that will make the assembled product unreasonably dangerous . . . may well be subjected to liability on a warranty of fitness theory if the purchaser was relying on the seller, or a negligent entrustment theory or perhaps strict liability in tort without regard to reliance." Keeton *et al.*, *supra*, at 706. Products "are often made by independent contractors from materials furnished by

their employers. In such a case, the contractor is not required to sit in judgment on the plans and specifications or the materials provided by his employer. The contractor is not subject to liability if the specified design or material turns out to be insufficient to make the chattel safe for use, *unless it is so obviously bad that a competent contractor would realize that there was a grave chance that his product would be dangerously unsafe.*" *Restatement (Second) of Torts* § 404, comment a (1977) (emphasis added); and see the cases cited in the preceding paragraph. Note "obviously"; and note how both doctrines we have been discussing resemble the doctrine of "last clear chance."

But the plaintiffs did not argue that Konecranes' effort to shift all blame for the accident to Infra-Metals was a red herring; and so the consideration decisive for our review of the rulings at trial is that the misleading instruction on "open and obvious" cannot have determined the jury's verdict. The defendant's principal argument was not that the danger was obvious, whether to the accident victim or to the crane's operator, but that the safety precautions were adequate and that the culpable cause of the accident was Infra-Metals' failure to instruct the operator adequately in the safe operation of the crane. Apparently the jury was persuaded. There are no grounds for setting aside its verdict. The judgment for the defendant is therefore

AFFIRMED.

No. 06-3773

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A true Copy:

Teste:

*Clerk of the United States Court of
Appeals for the Seventh Circuit*