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## **Blasting - Absolute Liability for Damages Caused by Concussion or Vibration**

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## BLASTING—ABSOLUTE LIABILITY FOR DAMAGES CAUSED BY CONCUSSION OR VIBRATION

In the conduct of blasting operations, liability for damage to property or injuries to the person may be imposed by the application of the principles of negligence, nuisance, or liability without fault.

There appears to be no dissent from the proposition that where blasting is done in a negligent manner,<sup>1</sup> the person blasting is liable for any damage or injury caused by the blasting, whether such damage or injury is caused by falling rocks, or by concussion or vibration. It appears that the same is true where the blasting constitutes a nuisance.<sup>2</sup>

The cases in other jurisdictions, almost without exception, will also impose liability for damages irrespective of the degree of care exercised in the blasting, if the blast hurls debris on the property of another. This rule of absolute liability has also been extended to cases where a person has been injured by the falling rocks or debris.

Pennsylvania courts have always been reluctant to impose absolute liability in any situation,<sup>3</sup> but in this particular instance they apparently are in accord with the decided weight of authority, because numerous cases have imposed absolute liability where rocks, earth, or debris have been thrown on another's property,<sup>4</sup> or where a person has been injured by such tangible matter.<sup>5</sup> In a fairly recent Supreme Court case, however, the court by way of dicta questions this proposition. This dicta will receive further attention at a later point.<sup>6</sup>

When the damage or injury is caused by *concussion* or *vibrations* sent through the earth or air by the explosion, but unaccompanied by falling rocks, earth, or debris, the courts in the United States are split into two groups.

The majority of the courts which have considered this problem have imposed absolute liability where the damages are caused by concussion or vibration, refusing to distinguish it from the case where the damages are caused by falling debris.<sup>7</sup>

<sup>1</sup> 11 R.C.L. 674; 35 C.J.S. 239; 22 Am. Jur. 179.

<sup>2</sup> 35 C.J.S. 239.

<sup>3</sup> *Summit Hotel Co. v. National Broadcasting Co.*, 336 Pa. 182, 8 A. 2d 302 (1939).

<sup>4</sup> *Beecher v. Dull*, 294 Pa. 17, 143 A. 498 (1928); *Rafferty v. Davis*, 260 Pa. 563, 103 A. 951 (1918); *Mulchanock v. The Whitehall Cement Mfg. Co.*, 253 Pa. 262, 98 A. 554 (1916); *See Federoff v. Harrison Construction Co.*, 163 Pa. Super. 53, 60 A. 2d 334 (1948).

<sup>5</sup> *Rafferty v. Davis*, 260 Pa. 563, 103 A. 951 (1918); *McGowan v. William Steele & Sons Co.*, 112 Pa. Super. 522, 171 A. 903 (1913). But see *Baker v. Hagey*, 177 Pa. 128, 35 A. 705 (1896).

<sup>6</sup> *Summit Hotel Co. v. National Broadcasting Co.*, 336 Pa. 182, 8 A. 2d 302 (1939).

<sup>7</sup> *Exner et ux. v. Sherman Power Construction Co.*, 54 F. 2d 510 (1931); *McGrath v. Basich Bros. Const. Co.*, 7 Cal. App. 2d 373, 46 P. 2d 981 (1935); *Baker et al. v. S. A. Healy Co. et al.*, 302 Ill. App. 634, 24 N.E. 2d 228 (1939); *Watson v. Mississippi River Power Co.*, 174 Iowa 23, 156 N.W. 188 (1916); *Stocker v. City of Richmond Heights*, 235 Mo. App. 277, 132 S. W. 2d 1116 (1939); *Wendt v. Yant Construction Co.*, 125 Neb. 277, 249 N.W. 599 (1933); *Louden v. City of Cincinnati*, 90 Ohio St. 144, 106 N.E. 970 (1914); *Tibbets & Pleasant, Inc. v. Benedict et al.*, 128 Okla. 106, 261 Pac. 551 (1927); *Hickey v. McCabe*, 30 R.I. 346, 75 A. 404 (1910); *Feinberg v. Wisconsin Granite Co.*, 54 S.D. 643, 224 N.W. 184 (1929); *City of Knoxville et al. v. Peebles et ux.*, 19 Tenn. App. 340, 87 S. W. 2d 1022 (1935); *Patrick v. Smith*, 75 Wash. 407, 134 Pac. 1076 (1913); *Brown et al. v. L. S. Lunder Const. Co.*, 240 Wis. 122, 2 N.W. 2d 859 (1942).

The other group agrees that blasting is an ultra-hazardous activity which involves a risk to the property and person of others, and therefore the rule of absolute liability should be imposed, but it insists that this rule must be confined to cases where there has been a *direct trespass*. This group has therefore refused to impose absolute liability where the damages or injuries are caused by *concussion* or *vibration* alone on the theory that this is not a direct trespass.<sup>8</sup>

In a practical sense, it would appear that there is little basis for drawing this fine distinction because the initial force in each instance is applied by means of the same element, to wit, the blasting. The court in *Watson v. Mississippi River Power Co.*, 174 Iowa 23, 156 N. W. 188 (1916), refused to distinguish the two situations, stating:

"Physical invasion of the property of another does not necessarily imply an actual breaking or entering of plaintiff's close by the wrongdoer in person, or casting upon his premises any particular thing or substance. Employment of force of any kind which, when so put in operation extends its energy into the premises of another to their material injury. . . is as much a physical invasion as if the wrongdoer had entered thereon in person. . ."

There is little doubt, however, that the courts which have refused to impose absolute liability where damages have been caused by concussion or vibration have also been influenced by their views as to the requirements of public policy. In the leading case of *Booth v. Rome*,<sup>9</sup> wherein the court refused to adopt the rule of absolute liability where damages were caused by concussion, the New York Court said:

"Public policy is sustained by the building up of towns and cities and the improvement of property. Any unnecessary restraint on the freedom of action of a property owner hinders this. The law is interested also in the preservation of property and property rights from injury. Will it, in this case, protect the plaintiff's property by depriving the defendant of his right to adapt his property to a lawful use, through means necessary, usual and generally harmless? We think not."

This question of whether the rule of absolute liability prevails where damages or injuries have been caused by concussion or vibration apparently has not been adjudicated by the appellate courts of Pennsylvania.<sup>10</sup> The problem has been considered in some lower court cases, and so by an examination of these cases and of certain dicta expressed in a few opinions of the Superior and Supreme Courts, we may be able to determine, or at least express an opinion, as to the present

<sup>8</sup> *Bessemer Coal, Iron & Land Co. et al. v. Doak*, 152 Ala. 166, 44 So. 627 (1907); *Bacon v. Kansas City Terminal Railway Co.*, 109 Kan. 234, 198 Pac. 942 (1921); *Gibson v. Womack*, 218 Ky. 626, 291 S.W. 1021 (1927); *Dolham et ux. v. Peterson*, 297 Mass. 479, 9 N.E. 2d 406 (1937); *Simon v. Henry*, 92 N.J. Law 486, 41 A. 692 (1898); *Booth v. Rome W. & O. T. R. Co.*, 140 N.Y. 267, 35 N.E. 592 (1893); *Indian Terr. Illuminating Oil Co. v. Rainwater*, 140 S.W. 2d 491 (1940).

<sup>9</sup> *Booth v. Rome W. & O. T. R. Co.*, 140 N.Y. 267, 35 N.E. 592 (1893).

<sup>10</sup> *Federoff v. Harrison Construction Co.*, 163 Pa. Super. 53, 60 A. 2d 334 (1948).

status of the liability in Pennsylvania for damages caused by concussion or vibration as a result of blasting.

In the case of *Beecher v. Boyd*, 30 Dauphin County 318 (1927), the plaintiff brought suit to enjoin the defendant from blasting on the grounds that it constituted a nuisance. In the course of its opinion, however, the court did discuss the question of imposing absolute liability for damages caused by concussion or vibration as a result of blasting. Though this was dicta, the court did state the following:

"Since recovery is permitted for damages done by stones or dirt thrown upon one's premises by the force of an explosion upon adjoining premises, there is no valid reason why, recovery should not be permitted for damage resulting to the same property from a concussion or vibration sent through the earth or air by the same explosion. *There is really as much a physical invasion of the property in the one case as there is in the other. . .*" Italics supplied)

In the Superior Court case of *Baier et ux. v. Glen Alden Coal Co.*<sup>11</sup> the plaintiff brought an action of trespass to recover damages to real estate caused by the use of dynamite by defendant's contractor in drilling a hole in the sidewalk in front of, and about 8 feet from the plaintiff's house. There was no direct evidence of negligence in the manner of using the dynamite nor was there any allegation that the use of the dynamite under the circumstances constituted a nuisance. The plaintiff, however, did introduce evidence that stones and dirt were thrown on his property and therefore plaintiff was allowed to recover, but in the course of the opinion the court did make the following significant statement:

". . . such an explosion was bound to set up violent vibrations in the earth and the waves would in the natural course of events reach plaintiff's property. . . Such an act was just as much a breaking of plaintiff's close as any direct trespass."

Annotators<sup>12</sup> and courts in other jurisdictions<sup>13</sup> have used this case as authority for including Pennsylvania amongst those states which impose absolute liability where damages are caused by concussion or vibration alone. In doing so they have overlooked the fact that the plaintiff did present evidence that stones and dirt were thrown on his property.

The most recent case in point in Pennsylvania is *Harclerode et ux. v. Detwiler et al.*, a Common Pleas Court decision.<sup>14</sup> In this case plaintiffs sought to recover damages for injury to improvements on their land due to vibrations from blasting in defendant's quarry and based their action upon the theory of absolute liability. The court held that the doctrine of absolute liability for blasting damages due only to vibration or concussion did not obtain in Pennsylvania. However, the court

<sup>11</sup> 131 Pa. Super. 309, 200 A. 190 (1938); Affirmed 332 Pa. 561, 3 A. 2d 349 (1939).

<sup>12</sup> 35 C.J.S. 239.

<sup>13</sup> *Brown et al. v. L. S. Lunder Const. Co.*, 240 Wis. 122, 2 N.W. 2d 859 (1942).

<sup>14</sup> 61 D. & C. 541 (1947).

did cite *Baier v. Glen Alden* as authority for the proposition that "damage caused by concussion or vibration was just as much a breaking of plaintiff's close as any other direct trespass." The court then went on to hold that liability may still exist despite the absence of negligence, but that such liability would be limited to damages which might or ought to have been foreseen by the person doing the blasting.

In light of the above three cases, it does appear that the courts of Pennsylvania do subscribe to the theory that injury to property caused by concussion or vibration as a result of blasting is as much a trespass as is the case where some tangible debris is cast on the property. Should it not follow that liability for damages in both instances be alike? If not, what is the reason for drawing a distinction?

In the case of *Harclerode v. Detwiler*, the court adhered to the rule that absolute liability prevails where blasting injures another's property by throwing debris thereon, but rejects the theory of absolute liability when damages are caused by concussion or vibration alone. It admits that there may be liability without negligence in the latter situation, but limits it to damages which could have been foreseen by the blaster. In arriving at this middle position the court relied, to a large extent, on the dicta expressed in the case of *Summit Hotel Co. v. National Broadcasting Co.*<sup>15</sup> In this case the court refused to extend liability without fault to a radio broadcasting company for a defamatory remark *ad libbed* by the radio and screen star, Al Jolson. In discussing the narrow application of the doctrine of absolute liability in Pennsylvania, Chief Justice Kephart stated:

"... we have held that in blasting a person conducting the operation is liable regardless of negligence, but this liability arises out of the inherently dangerous character of such explosions, and requires one who intentionally causes the explosion to be affected with knowledge that injury may result beyond his power to prevent. He therefore must *assume the risk*. This is not strictly a case of absolute liability." (Italics supplied)

It is important to note that Chief Justice Kephart made no attempt to distinguish between the cases where damages were inflicted by falling debris, and where they were the result of concussion alone, and yet, the court in the *Harclerode* case appears to have construed the statements above to mean that there is absolute liability in the former instance and not in the latter. The lower court's position seems untenable. If the Supreme Court meant what it purports to have said, the rule of absolute liability should not prevail in *either* situation. However, it is the writer's opinion that absolute liability does prevail in *both* situations and that Chief Justice Kephart, by the use of the words "assume the risk," was merely applying new terminology to the theory of absolute liability. Since Chief Justice Kephart was dwelling on the theme "a tort implies fault or wrong in Pennsylvania," it is understandable why he preferred to use words such as "assume the risk" instead of "absolute liability." Numerous Superior and Supreme Court de-

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<sup>15</sup> *Supra*. Note 4.

cisions have clearly held that the rule of absolute liability prevails at least in the one situation where damages are inflicted by falling debris.<sup>16</sup> In the very recent case of *Federoff et al v. Harrison Construction Co.*<sup>17</sup> the court expressed the rule very clearly:

"Where a defendant so conducts its work of blasting as to cause damage to property or injury to persons by the throwing of rocks, earth, or debris, this amounts to a direct trespass, *for which the liability of the defendant is absolute* and for which it is bound to respond in damages without regard to the question of negligence." (Italics supplied)

To return to the case of *Harclerode v. Detwiler*, it is difficult to understand how the application of the theory expressed in that case, namely, foreseeability of risk, will be of any great aid to the courts. If by foreseeable risk the court means that the party blasting must have had reason to believe he was creating an unreasonable risk of invading property or bodily interests, this would be negligence.<sup>18</sup> However, the court clearly states that there may be liability without negligence. Therefore, the court must be speaking of the situation where there is merely a reasonable risk of harm which cannot be avoided, and if the court holds him liable in such a case, it would appear to the writer that the court is actually holding the defendant liable on the theory of absolute liability. The court must have recognized this problem also, because it did admit that other jurisdictions have advanced the theory that, *if the harm is foreseeable* as a result thereof, the doing of the act of blasting, no matter how carefully done, is of itself negligence.

A reasonable conclusion to be drawn from these Pennsylvania cases is that no distinction as to the nature of the trespass should be drawn in these two situations, and therefore if absolute liability is to be imposed, it should be for all damages directly resulting from the blasting, whether caused by falling debris or by concussion and vibration.

This was the result reached in *Richard v. Kaufman et al.*, which was a Federal District Court case applying the law of Pennsylvania.<sup>19</sup> In that case the plaintiff brought an action to recover damages for depreciation in the value of a farm because of a diminution of water in a spring located on the farm as a result of defendant's blasting operations. No negligence was averred but the court found for the plaintiff and said:

"Under the law of Pennsylvania, which is controlling in this case, a person who conducts an ultra-hazardous activity, such as blasting, is responsible for damages directly resulting therefrom, even in the absence of negligence or fault. The fact that the damage is claimed to have resulted from vibrations in the ground, rather than from the propulsion of debris or other objects through the air, does not make the trespass any the less direct."

<sup>16</sup> *Supra*. Notes 2 and 3.

<sup>17</sup> 163 Pa. Super. 53, 60 A. 2d 334 (1948).

<sup>18</sup> ELDREDGE, *MODERN TORT PROBLEMS*, (1941), 35.

<sup>19</sup> 47 F. Supp. 337 (E. D. Pa. 1942).

This appears to be a correct expression of the law as it now exists in Pennsylvania and one which will probably lead to the most equitable results. It is true that blasting will often prove beneficial to the community as a whole and in such cases it certainly should not be prohibited in advance, but if the party blasting enjoys the profits from such, the risk of paying for any injuries which directly result from the blasting should rest upon him rather than upon the person injured. It will probably be argued that the imposition of absolute liability in cases where damage is caused by concussion or vibration alone will tend to lead in the long run to the prosecution of many unfounded claims. There is little justification for this fear because the plaintiff still carries the burden of proving that the blast and the resultant concussion or vibration was the *direct* cause of the damages to the property or injuries to the person.

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