# A MODEL IN WHICH SUITS ARE BROUGHT FOR THEIR NUISANCE VALUE

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#### I. INTRODUCTION

By a suit brought for its nuisance value, we mean a suit in which the plaintiff is able to obtain a positive settlement from the defendant even though the defendant knows the plaintiff's case is sufficiently weak that he would be unwilling or unlikely actually to pursue his case to trial. This note considers a model of the legal dispute allowing for the occurrence of such nuisance suits (among other types of outcome). The main features of the model are illustrated in Figure 1. Specifically, the plaintiff may choose to *file a claim* at some (presumably small) cost. If the defendant does not then *settle* with the plaintiff and does not, at a cost, *defend* himself, the plaintiff will prevail by default judgment. If the defendant does defend himself, however, the plaintiff then may either *withdraw* or may, at a cost, *litigate*, resulting in a favorable verdict only with a probability (and a low one if his case is weak).

Given the model and the assumption that each party acts in his financial interest and realizes the other will do the same, it is easy to see how nuisance suits can arise. By filing a claim, any plaintiff, and thus the plaintiff with a weak case, places the defendant in a position where he will be held liable for the full judgment demanded unless he defends himself. Hence, the defendant should be willing to pay a positive amount in settlement to the plaintiff with the weak case—despite the defendant's knowledge that were he to defend himself, such a plaintiff would withdraw.

This idea is elaborated below in Section II, which presents a general analysis of the model using numerical examples. The situations in addition to that of the nuisance suit that are discussed in the analysis are those where the plaintiff's case is 'meritorious'—he would be likely to prevail at trial—but he would still not want to go to trial because the litigation costs would exceed the expected judgment; where the plaintiff's case is sufficiently strong and the expected judgment sufficiently high that he would be willing to go to trial; and, generally, where litigation costs are shifted to the losing party at trial.

Section III formally analyzes the model and proves the results of Section II. The concluding Section IV considers the realism of the model, offers several qualifying remarks, and comments on previous models of the litigation process.

\*Shavell acknowledges financial support from the National Science Foundation (grant no. SES-8014208). We wish to thank Lucian Bebchuk for comments.

0144-8188/85/01 0003-11 \$03.00 © 1985 Butterworth & Co (Publishers) Ltd

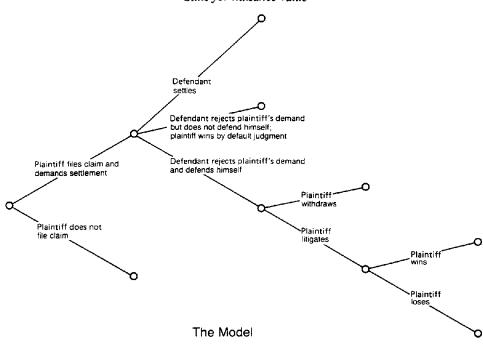


Fig. 1

## II. NUMERICAL EXAMPLES

Suppose that the cost to the plaintiff of filing a claim is \$25; that the cost to the defendant of defending himself would be \$200; that the cost to the plaintiff of then litigating through trial would be \$100; that the probability of the plaintiff prevailing at trial would be only 1 per cent (in the opinions of both parties); and that the amount the plaintiff would obtain were he to prevail at trial or by default judgment is \$1000.\frac{1}{2}\$ Thus the plaintiff's case is weak, and because his 'expected' or probability discounted judgment from litigation would be only 1 per cent \times \$1000 or \$10, which is substantially less than his litigation costs of \$100, he would not litigate the case through trial.\frac{2}{2}\$

Now let us verify that although the plaintiff would withdraw were the defendant to defend himself, the defendant would be willing to pay the plaintiff in settlement any amount up to his defense costs of \$200. Suppose, for instance, that the plaintiff files a claim and demands \$180 in settlement. The defendant will then reason as follows (see Figure 1). If he settles, his costs will be \$180. If he rejects the demand and does not defend himself, he will lose \$1000 by default judgment. If he rejects the demand and defends himself, the plaintiff will withdraw, but he will have spent \$200 to accomplish this. Hence, the defendant's costs are minimized if he accepts the plaintiff's demand for \$180; and the same logic shows that he would have accepted any demand up to \$200.3

It follows that the plaintiff will find it profitable to file his nuisance claim; indeed, this will be so whenever the cost of filing is less than the defendant's cost of defense. Because the plaintiff is able to obtain from the defendant in settlement as much as his

\$200 defense costs, the plaintiff will clearly decide to file if the filing costs are less than \$200;4 the fact that they are only \$25 makes filing extremely attractive.5

Consider next the situation where the plaintiff's case is meritorious but he would still be unwilling to go to trial because the costs of litigation would exceed the expected judgment. This situation is qualitatively similar to that of the nuisance case in that the plaintiff may still find it profitable to file a claim. Suppose for example that the plaintiff would have a 70 per cent chance of winning at trial; that the judgment amount would be \$300; that his litigation costs would be \$250; and that the defendant's defense costs would be \$200. Then as the plaintiff's expected judgment would be only \$210, he would not be willing to go to trial. But by the reasoning used above, the plaintiff nevertheless can obtain in a settlement as much as the defendant's defense cost of \$200, so that he would certainly choose to file a claim if the filing cost if \$25.

Now consider the situation where the plaintiff's likelihood of prevailing and the judgment amount are sufficiently high that he would be willing to engage in litigation. Suppose that not only is the likelihood of the plaintiff prevailing 70 per cent, but also that the judgment amount would be \$1000, as originally assumed. Then the plaintiff's expected judgment from litigation would be \$700, which exceeds his litigation costs of \$250; thus the plaintiff would indeed be willing to litigate. In this situation, it is clear that the plaintiff can obtain in a settlement any amount up to the defendant's costs of defense plus the expected judgment, that is, \$200+\$700 or \$900.6 For were the defendant to reject a settlement demand and defend himself at a cost of \$200, then, unlike before, the plaintiff would litigate and the defendant would bear expected liability of \$700, meaning that his total expected costs would be \$900. Of course, because the plaintiff's credible threat to litigate enables him to obtain a higher settlement than before, he will file a claim more often than before; he will do so whenever the cost of filing is less than the defense costs plus his expected judgment.

Last, briefly reconsider the analysis assuming that the prevailing party's costs of litigation would be shifted to the losing party, that is, that the so-called British system for the allocation of litigation costs applies. Tunder the British system, a plaintiff who would be unwilling to litigate would never file a claim; in particular, nuisance suits would never occur. The reason for this conclusion is that if the defendant defended himself against a plaintiff who would then withdraw, the defendant, being the winning party, would recover his defense costs of \$200. Hence his defense would turn out to be costless, and this in turn means that the plaintiff would not be able to extract a settlement from him and so would not be able to profit from filing a claim.

A related point is that under the British system the willingness of the plaintiff to litigate and to file a claim will be less than under the usual American system if the likelihood of prevailing is low. The explanation for this is simply that if the likelihood of prevailing is low, then the plaintiff's expected litigation costs will be high under the British system. For instance, if the likelihood of prevailing is near 0, the plaintiff's expected litigation costs under the British system will be close to his actual (unshifted) costs plus the defendant's; thus the expected costs will exceed those under the American system, and the chance that the plaintiff will be willing to litigate will therefore be less than under the American system.

On the other hand, if the likelihood of prevailing is high, then the willingness of the plaintiff to file a claim and litigate will be greater under the British system than under the American; thus the bringing of highly meritorious suits will be encouraged. In the case where the likelihood of prevailing is near 1, for example, the plaintiff's expected

litigation costs under the British system will be almost 0, so that his willingness to file and to litigate will clearly be greater than under the American system.

Note that an implication of these latter points is that use of the British system may or may not lead to a decrease in the number of claims filed, depending on the distribution of the likelihoods of the plaintiff prevailing.

### III. FORMAL ANALYSIS

Let us assume that the plaintiff and the defendant are risk neutral and that the sequence of actions they take is as illustrated in Figure 1. Thus, it is evident that a plaintiff's strategy can be identified with a pair: a decision between not filing and filing and demanding s in settlement; and then if a settlement demand is rejected, a decision whether to litigate. A defendant's strategy is a single choice: a decision whether to settle, to reject and not defend himself, or to reject and defend himself.

We will determine the sequential equilibrium strategies of the parties. That is, we will determine strategies that have two properties.

- 1. They are (Nash) equilibrium strategies: the plaintiff's strategy is his best strategy, given that the defendant employs his strategy; and conversely in respect to the defendant's strategy given the plaintiff's.
- 2. They are such that parties would never plan later to act in a way that would lower their expected utility (the interpretation being that they would never make 'threats' which it would not be in their self-interest to carry out). 10

Here, this means that the plaintiff will not plan to litigate if that would lower his expected return.

Now define the following notation.

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f = \text{plaintiff's cost of filing a claim; } f \ge 0;
s = \text{plaintiff's settlement demand; } s \ge 0;
b = \text{defendant's cost of defense; } b \ge 0;
a = \text{plaintiff's cost of litigation; } a \ge 0;
p = \text{probability that plaintiff would prevail in litigation; } 0 \le p \le 1;
w = \text{amount that plaintiff would win in a default or trial judgment; } w > 0.
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We assume that both parties know all these variables. We now state what would occur when parties employ sequential equilibrium strategies (the strategies themselves will be discussed in the proofs). Consider first the American system for the allocation of litigation costs, whereby each party pays his own costs of litigation independent of its outcome; thus the defendant pays b if he defends himself and the plaintiff a if he litigates.

Proposition 1.11 Under the American system for the allocation of litigation costs, (i) suppose that

$$pw < a,$$
 (1)

(the plaintiff would not be willing to litigate<sup>12</sup>). Then if

$$f \le \min(b, w) \tag{2}$$

the plaintiff would file a claim and ask for and receive a settlement of min(b, w); if (2) does not hold, however, he would not file a claim.

(ii) Suppose, on the other hand, that

$$pw \ge a$$
 (3)

(the plaintiff would be willing to litigate). Then if

$$f \le \min(b + pw, w) \tag{4}$$

the plaintiff would file a claim and ask for and receive a settlement of min(b+pw,w); if (4) does not hold, however, he would not file a claim.

- Note. (i) The explanation for this part is (as should be clear from the last section) that if the plaintiff files a claim but would not be willing to engage in litigation, then he can extract from the defendant his defense costs b, unless of course they exceed the amount at stake w. Hence, if the plaintiff files a claim, he will ask for and obtain  $\min(b, w)$ ; and he will thus file a claim if f is less than or equal to that amount.
- (ii) The explanation for this part is similar to that for (i), the only difference being that since the plaintiff would be willing to engage in litigation, then he can obtain from the defendant not only his defense costs b but also his expected losses pw were there litigation, but not to exceed w.
- **Proof.** (i) When (1) and (2) hold, we claim that sequential equilibrium strategies are these: The plaintiff files a claim and demands  $s = \min(b, w)$ ; and he would not litigate if a settlement demand were rejected. The defendant would accept any s where  $s \le \min(b, w)$ ; he would reject higher s; and he would defend himself provided that  $b \le w$ . (Given these strategies, the first part of (i) of the Proposition obviously follows.)

To verify that these are sequential equilibrium strategies, consider first the plaintiff. His strategy satisfies property (2), as his expected return from litigating would be pw-a < 0, whereas his return if he would withdraw would be 0. To check that it is optimal for him to file and to demand  $\min(b, w)$ , observe that since by (2) his strategy is such that he obtains  $\min(b, w) - f \ge 0$  and he would obtain 0 were he not to file, it is optimal to file. And given the defendant's strategy, it is clear that the plaintiff will receive s - f if  $s \le \min(b, w)$ , and so that the best such s is  $s = \min(b, w)$ . The plaintiff cannot improve on this by choosing a higher s: as such an s would be rejected, then if  $b \le w$ , the defendant would defend himself, so the plaintiff would withdraw and receive -f (and thus be worse off); and if b > w, the defendant would not defend himself, and the plaintiff would receive w - f (so would be equally well off).

Consider now the defendant. It is clear that if he rejects, he would defend himself when  $b \le w$ : for his return from defending himself would be -b (since the plaintiff would not litigate), and from failure to do so, -w. Hence, he will accept any  $s \le \min(b, w)$  and reject otherwise: for from the last sentence, if he rejects s, his return would be  $-\min(b, w)$ .

When (1) holds but (2) does not, it is clear from the argument just given that the plaintiff not filing (but were he to file, to act as specified above), and the defendant employing the same strategy as he did above constitute sequential equilibrium strategies.

(ii) When (3) and (4) hold, we claim that sequential equilibrium strategies are these: The plaintiff files a claim and demands  $s = \min(b, w)$ ; and he would litigate if a settlement demand were rejected. The defendant would accept any s where  $s \le \min(b + pw, w)$ ; he would reject higher s; and he would defend himself when b + pw < w.

Given (3), the plaintiff's strategy satisfies property (2): for if he litigates, his expected return will be pw-a, and if he does not, it will be 0. Also, as in (i), the plaintiff will wish to file, so that it remains to check the optimality of his settlement demand. It is clear that given the defendant's strategy, the best s among  $s \le \min(b+pw,w)$  is  $\min(b+pw,w)$ . Also, the plaintiff cannot improve his position by choosing a larger s: as it would be rejected, then if  $b+pw \le w$ , the defendant would defend himself, and the plaintiff would litigate and receive pw-a-f (so would be worse off); otherwise, the defendant would not defend himself, and the plaintiff would receive w-f (so would be equally well off).

Regarding the defendant, note that if he rejects, he will defend himself when  $b+pw \le w$ : for his return from defending himself would be -b-pw, and from failure to do so, -w. Hence, he will accept any  $s \le \min(b+pw,w)$  and reject other s: for from the previous sentence, we know that if he rejects s, his return will be  $-\min(b+pw,w)$ .

When (3) holds but (4) does not, it is clear that the plaintiff not filing and the defendant employing the same strategy is a sequential equilibrium. Q.E.D.

Now consider the British system for the allocation of litigation costs. Under this system, as observed in the last section, the losing party pays the legal costs of both sides: if the defendant defends himself and the plaintiff withdraws, the plaintiff pays the defendant's costs b; and if the defendant defends himself and there is litigation, the losing party pays a + b. 13

Proposition 2. Under the British system for the allocation of litigation costs, (i) suppose that

$$pw < (1-p)(a+b) \tag{5}$$

(the plaintiff would not be willing to litigate). Then the plaintiff would not file a claim.

(ii) Suppose on the other hand that

$$pw \ge (1-p)(a+b) \tag{6}$$

(the plaintiff would be willing to litigate). Then if

$$f \le \min(p(a+b+w), w) \tag{7}$$

the plantiff would file a claim and ask for and receive a settlement of  $\min(p(a+b+w), w)$ ; if (7) does not hold, however, he would not file a claim.

- Note. (i) Because the plaintiff would not be willing to litigate here, the defendant knows that if he defends himself he will prevail and recover under the British system his defense costs. Thus, the plaintiff would not be able to extract anything in settlement from the defendant and would therefore not file a claim.
  - (ii) The explanation for this is analogous to that for (ii) in Proposition (1).

*Proof.* (i) When (5) holds, we claim that the sequential equilibrium strategies are these: The plaintiff does not file a claim; but if he did so and his settlement demand were rejected, he would not litigate. The defendant would reject any settlement demand and would defend himself.

To verify that these are sequential equilibrium strategies, consider the plaintiff, and observe that his strategy satisfies property (2), for his expected return from litigating would be pw-(1-p)(a+b), which is negative by (5). Hence, it is optimal for the plaintiff not to file, for, given the defendant's strategy, filing would result in a return to the plaintiff of -f rather than 0. With regard to the defendant, note that if he rejects s and defends himself, he would prevail and thus not pay his legal costs, so that his return would be 0; whereas if he were to defend himself, his return would be -w. Hence, it must optimal for the defendant to reject any positive s: for if he does so, his return will be 0 rather than -s.

(ii) The proof of this part is analogous to that of Proposition 1(ii). Q.E.D.

Comparing behavior under the American and the British systems, we see that (i) under the American system, parties might well file claims when they would not be willing to litigate (they would do this whenever (2) holds); but under the British system they would never file claims when they were unwilling to litigate. This, however, does not imply that there would be fewer claims filed under the British system, for (as discussed in the previous section) (ii) the willingness to litigate under the British system will be greater than under the American if the probability of prevailing is sufficiently high. Specifically, if p > b/(a+b), then the plaintiff would be willing to litigate more often under the British system. And one might therefore expect to observe a higher frequency of claims under that system. On the other hand, if  $p \le b/(a+b)$ , then the plaintiff would be willing to litigate more often under the American system, and the frequency of claims would be higher under it. We should also observe that (iii) when the plaintiff is willing to litigate, the amount he obtains in settlement is influenced by the type of system; and it is generally higher under the British system if and only if p > b/(a+b).

Next, note how the Propositions would be altered if we assumed that the plaintiff could demand a settlement before he filed a claim. Under this assumption, it is easy to show that there exist sequential equilibrium strategies such that the plaintiff would settle at the outset if and only if he would have settled after filing in the model that we studied, where the amount of the settlement would be what we said it would be minus the cost of filing f. (Thus, for instance, in the situation in Proposition 1(i) where the plaintiff receives  $\min(b, w)$  in settlement, he would receive  $\min(b, w) - f$  at the outset.)

Finally, observe that if disparity of beliefs about the outcome of litigation were introduced into our model, the well-known theory of litigation would become embedded in it; and in particular, unlike in our model, litigation might actually occur.

## IV. CONCLUDING REMARKS

1. The feature of the model of primary interest was the ability of the plaintiff cheaply to place the defendant in a position where he would lose unless he engaged in a costly defense. This feature of the model seems justified in fact. First and most obviously, a party can usually file a claim at small expense asserting that another is legally liable for a harm he has suffered.<sup>20</sup> Second, it is not feasible for the courts to exercise much control over the quality of claims;

thus, only the plainly frivolous claim will be disallowed.<sup>21</sup> Third, if a claim goes unchallenged, the plaintiff ordinarily will prevail without further inquiry on the part of the courts.<sup>22</sup> And fourth, to defeat a claim, the defendant will have to engage in actions that are frequently more expensive than the plaintiff's cost of making the claim, for the defendant will have to gather evidence supporting his contention that he was not legally responsible for harm done to the plaintiff or that no harm was actually done.<sup>23</sup> Therefore, by making a claim, the plaintiff can usually do what was envisioned in the model.

It should be emphasized as well that the model does not have to be interpreted in so literal a sense for its point to be relevant. All that need be true is that the plaintiff be able to prevail with high probability unless the defendant spends a larger amount defending himself.<sup>24</sup>

- 2. After the plaintiff has filed a claim, there will often be actions that he or the defendant can take that will impose considerable costs on the other. Notably, during discovery the plaintiff or the defendant might ask for information which the other would find expensive to prepare; or one of the parties might at some point hire an expert who asserts facts which it would be difficult for the other to refute; and so forth. It is clear that were such possibilities incorporated into a more elaborate model of litigation, we could conclude by the logic of our simple model that whenever a party is able to impose significant costs on the other, he should be able to bargain for a relatively advantageous settlement.<sup>25</sup>
- 3. A defendant facing the prospect of many nuisance suits (or meritorious suits which the plaintiff would not find worthwhile litigating) may in certain circumstances be able to ward them off. If the issues presented by the suits are related, then the costs of defense could be spread over many plaintiffs, making the costs per plaintiff quite low. Hence, according to the model, a plaintiff would be able to obtain in settlement only this low amount; and if it were less than his cost of filing, he would be discouraged from filing in the first place. Similarly, a defendant facing the possibility of many nuisance suits might find it worthwhile to reject a particular plaintiff's demands and to defend himself in order to acquire a reputation for 'toughness,' and thus to discourage other plaintiffs from filing claims.
- 4. We should caution that our conclusion that under the British system nuisance suits would be discouraged and highly meritorious suits encouraged should not be taken as a recommendation for adoption of the British system. For as we said, its use would affect the propensity to file claims quite generally (not just those cases clearly fitting into the category of nuisance suits or of highly meritorious suits), might also increase the volume of litigation,<sup>27</sup> and thus requires a broader analysis for thorough evaluation.
- 5. The major respect in which the model of the present note differs from existing models<sup>28</sup> of litigation is that the plaintiff may take an initial action (file a claim) that allows him to win unless the defendant engages in a defense. In the existing models, by contrast, a plaintiff can win only by going to trial, so that a plaintiff who is unwilling to go to trial cannot wield a credible threat against a defendant who knows this to be true.<sup>29</sup>

#### REFERENCES AND NOTES

1. It will be obvious that the qualitative nature of our conclusions would not be altered were we to allow the default and trial judgment amounts to differ.

- 2. The assumption that parties evaluate uncertain prospects in terms of their expected values—that they are 'risk neutral'—is made for simplicity. It will be evident from the logic of the arguments to be made that nothing of importance to us would be changed were we to assume that parties are 'risk averse' and to take into account not only the expected value but also the degree of risk. For an introductory treatment of risk aversion, risk neutrality, and decision theory generally, see H. Raiffa, Decision Analysis (1968).
- 3. If, however, the amount the plaintiff would obtain in a judgment were less than \$200, say \$50, then, clearly, the defendant would accept demands only up to \$50. More generally, in the situation where the plaintiff would not litigate, the defendant would accept settlement demands up to his costs of defense or the judgment amount, whichever is lower.
- 4. Referring to note 3, *supra*, it is clear that were the judgment amount only \$50, then since the defendant would pay at most this amount, the plaintiff would file a claim only when the filing costs are less than \$50. More generally, in the situation where the plaintiff would not litigate, he will file a claim when the cost of so doing is less than the minimum of the defendant's costs of defense and the judgment amount.
- 5. Observe as well that the plaintiff need not actually file his claim to be able to obtain a settlement from the defendant; it is enough that he would be willing to do so. That is, suppose we modify the model slightly to accommodate the possibility that the plaintiff could make his demand before he filed a claim. Then the defendant might be imagined to settle with the plaintiff at that point—though for somewhat less, reflecting the cost of filing—knowing that the plaintiff's threat otherwise to file a claim would be credible. See the remark about this at the end of Section III.
- 6. More generally, and as in previous notes, he can obtain in settlement any amount up to the minimum of this and the judgment amount.
- 7. See P. Mause, 'Winner Takes All: A Re-Examination of the Indemnity System,' (1969) 55 Iowa L. Rev. 26, for an informal analysis of the British system; this is the prevailing method for allocation of litigation costs in the UK (although as a practical matter it usually does not result there in full indemnification of the winner). For formal analysis of the shifting of litigation costs using economic models of the litigation process, see R. A. Posner, Economic Analysis of Law, Little, Brown (2nd ed.—1977); S. Shavell, 'Suit, Settlement, and Trial: A Theoretical Analysis Under Alternative Methods for the Allocation of Legal Costs,' (1982) 11 J. Legal Stud. 55; and see L. Bebchuk, 'An Analysis of Litigation and Settlement Under Imperfect Information,' forthcoming in Rand J. Econ.
- 8. The meaning of 'low' here is shown in the next section to be less than b/(a+b), where a is the plaintiff's litigation costs and b the defendant's defense costs. Thus in our first example, a low likelihood is one less than \$200/\$300 or  $66\frac{2}{3}$  per cent.
- 9. We thus restrict attention to pure strategies.
- 10. See D. Kreps and R. Wilson, 'Sequential Equilibria,' (1982) 50 Econometrica 863, for the general definition of a sequential equilibrium; the general definition specializes to the one we have given in the simple game we are considering.
- 11. To simplify the statement of results here and later, we will assume that where the plaintiff would be indifferent between engaging in litigation and not, he would do so; and where he would be indifferent between filing a claim and not, he would do so.
- 12. As observed in the last section, pw < a can hold for high w if p is sufficiently low (the typical nuisance suit), or for high p if w is sufficiently low (the meritorious suit not worth bringing).
- 13. Note that we therefore are assuming that if the plaintiff prevails he does not recover his cost of filing f. It will be obvious, however, that were we to alter this assumption, our results would not be materially changed.
- 14. For it is easily verified that if p > b/(a+b), then a > (1-p)(a+b), so that (6) holds more often than (3). Essentially this result is obtained in Shavell, note 7, supra.
- 15. But this need not be true, for as we have stressed, the plaintiff may decide to file a claim under the American system even when he would be unwilling to litigate.
- 16. Since in this case  $a \le (1-p)(a+b)$ , (6) holds less often than (3).
- 17. To prove this, suppose that the plaintiff would file a claim under the British system, and let

- us show that he would also file under the American. Since he would file under the British, it must be that (6) and (7) hold. But as we observed in the last note, (6) implies (3); and it is easily verified that (7) implies (4). Hence, the plaintiff would file under the American system.
- 18. This follows because, first, when the plaintiff is willing to litigate under the British system, he obtains  $\min(p(a+b+w), w)$  and under the American,  $\min(b+pw, w)$ . And second, p(a+b+w) > b+pw if and only if p > b/(a+b).
- 19. See W. Landes, 'An Economic Analysis of the Courts,' (1971) 14 J. Law and Econ. 61; J. Gould, 'The Economics of Legal Conflicts,' (1973) 2 J. Legal Stud. 279; Posner, note 7, supra; and Shavell, note 7, supra.
- 20. In Massachusetts, for example, the fee for filing a civil suit is \$55 in state court and \$60 in federal court. But of course, the total cost of filing a claim includes also the cost of attorney services.
- 21. Although under Fed.R.Civ.P. 11 courts can (and as recently amended, shall) impose sanctions, including attorneys' fees, against a party whose pleading is not 'well grounded in fact and . . . warranted by existing law or a good faith argument for the extension, modification, or reversal of existing law,' they have been loath to do so (see C. Wright and A. Miller, Federal Practice and Procedure §1334, West (1969)), for a plaintiff can almost always discover an arguably reasonable basis for a suit. And in cases in which state laws apply, there is the additional problem that some states will award attorneys' fees only when the defendant can demonstrate some 'special injury' other than the normal expense and aggravation that attend the defense of a lawsuit. See 52 Am.Jur.2d Malicious Prosecution §\$10-11 (1970 & supp. 1983). Also, while the A.B.A. Code of Professional Responsibility prohibits a lawyer from 'asserting a position in litigation that is frivolous,' E.C. 7-4, it may be questioned whether this stricture has had much effect.
- 22. See Fed.R.Civ.P. 55 and state rules of procedure concerning default judgments.
- 23. The defendant's only relatively inexpensive means of defending himself is a motion to dismiss (filed under Fed.R.Civ.P. 12(b)(6) or the appropriate state rule). A sufficiently skilled plaintiff can draft a complaint which will survive such a motion, so that the defendant must then turn to a summary judgment motion. Summary judgment will be obtained only if the defendant marshalls evidence to defeat the plaintiff's claim, and such evidence can usually be gathered only at considerable expense.
- 24. More precisely, suppose that the model is modified as follows. If the defendant does not settle, one possibility is that he spends a small amount in defense, in which case the plaintiff prevails with high probability (corresponding to the branch in Figure 1 where the plaintiff wins by default judgment). The other possibility is that the defendant spends a large amount in defense, in which case the plaintiff prevails with a low probability if he spends no more (corresponding to the branch where he withdraws), but prevails with a higher probability if he spends an additional amount (corresponding to the branch where the plaintiff litigates). It should be clear to the reader that this modified model could be solved virtually as we solved ours, and that the results would be analogous to ours.
- 25. In fact, concern about 'use of discovery . . . as a device to coerce a party' led to recent amendments to Fed.R.Civ.P. 26, which now authorizes courts to limit discovery and to impose sanctions, including attorneys' fees. See also Fed.R.Civ.P. 26 advisory committee note.
- 26. Assume, for instance, that the defendant faces the prospect of 1000 nuisance suits; that facts relevant to the defense in all such suits would cost \$20000 to prepare; and that issues specific to each case would involve only \$50 in defense costs to develop. Then the average cost of defense would be only \$20+\$50=\$70, and if the plaintiff's cost of filing (plus his time and effort) exceeded this amount, he would not bother to file a claim. See D. Rosenberg, 'The Causal Connection in Mass Exposure Cases: A "Public Law Vision" of the Tort System,' (1984) 97 Harv. L. R. 849, for a discussion of this point.
- 27. There is reason to believe that conditional on a claim being filed, the likelihood of litigation would be higher under the British system than under the American. See Posner, note 7, supra; Shavell, note 7, supra; and Bebchuk, note 7, supra.

- 28. In addition to the papers cited in notes 7 and 19, supra, see R. Cooter, S. Marks and R. Mnookin, 'Bargaining in the Shadow of the Law,' (1982) 11 J. Legal Stud. 225; J. Ordover and A. Rubinstein, 'On Bargaining, Settling, and Litigating: A Problem in Multistage Games with Imperfect Information,' (1983) New York Univ. Law R.; I. P'ng, 'Strategic Behavior in Suit, Settlement, and Trial,' (1983) 14 Bell J. Econ. 539; S. Salant and G. Rest, 'Litigation of Questioned Settlement Claims: A Bayesian Nash-Equilibrium Approach,' (1982) Rand Corp.; W. Samuelson, 'Negotiation v Litigation,' (1983) Boston Univ.
- 29. In P'ng, note 28, supra, nuisance suits occur, but only because (as is admitted) it is assumed that plaintiffs successfully make threats to go to trial even though defendants know they would actually not do so.