A game by STEFAN RISTHAUS for 2-4 players

12 years and up

Arkwright

Spinning Jenny

SPIELWORXX

Contents

1.0 INTRODUCTION

In the 17th and 18th century merchantmen sailing under the English flag dominated the seas and the international trade.
The Navigation Acts prevented rivals from other countries from interfering in the trade between England and her colonies.

English inventors and businessman like Richard Arkwright developed the first serious machines (e.g. the *spinning jenny* or the *water frame*) and founded early factories. The goods produced in this manner were not only highly regarded in the old country but also Englishman living in the colonies did not want to miss out on these goods.

2 to 4 players try to develop their commercial enterprise and guide it to prosperity. It is important to boost confidence in your own company and ensure that the value of its shares rises. N.b. only shares in your possession at the end of the game will count towards winning the game. It is therefore of prime importance to transfer as many shares as possible from the bank into your own portfolio.
The player who has the most valuable portfolio of his shares wins the game.

Arkwright contains two different versions of the game named after milestones of engineering progress – the *spinning jenny* and the *water frame*. The water frame version adds further elements to the game and turns ***Arkwright*** into a complex game that will last an evening.

2.0 GAME COMPONENTS

Each copy of ***Arkwright*** contains

- 1 large game board
- mat for special markers (double sided – one side is used for the *spinning jenny* version, the other for the *water frame* version of the game)
- 4 factory mats (one per player)
- 4 harbour mats (one per player)
- 120 bills (40 **£1**, 20 **£2**, 20 **£5**, 20 **£10**, 12 **£10**, 8 **£50**)
- 1 start player token
- 2 timetable indicators
- 4 neutral importer markers
- 80 worker tokens
- 50 machine tokens
- 40 goods tokens
- 4 share value indicators (one per player)
- 16 price indicators (four per player)
- 16 distribution markers (four per player)
- 16 appeal indicators (four per player)
- 40 share markers (5 X 1 share and 5 X 5 shares per player)
- 24 action markers (per player: factory, quality, workers, distribution, stock exchange, machinery)
- 16 contract markers (x 4 per product)
- 32 event markers (16, each in German and English)
- 36 economy markers (per 9 per product)
- 28 advanced markers * (4 x stock exchange,
- 12 in light- and dark grey: machinery, distribution, quality, production)
- 40 development tiles *
- 10 ships (4 with a load capacity of 2, 2 with capacity 4 and 2 with capacity 6, one with capacity of 8 and one with capacity 10) *
- 4 rule books (*spinning jenny* German and English; *water frame* German and English)
- 2 player books (German and English)
- 8 player aids (German and English)

* Development tiles, advanced markers and ships will be referred to as special markers.

3.0 WINNING THE GAME

In a game of ***Arkwright*** the players will attempt to own the most valuable portfolio at the end of the game.

In the *spinning jenny* version of the game the players prepare their enterprise in the 1760s round and play the next three decades.
Each turn consists of four cycles and one event phase.

In each cycle each player is active once. At the end of a cycle all the factories produce the goods that were active in the preceding cycle. The thus produced goods are sold or stored in England.

We recommend that you set up the game components on a table while you are reading the rules. This will considerably facilitate learning them.

An extensive description of the components can be found in the player book.

4.0 SETTING UP THE GAME

Spinning jenny consists of a preparation round (the 1760s) and three subsequent decades (game turns): 1770s, 1780s and 1790s.

The following components are **not** required for the spinning Jenny version and can be returned to the box:

1. all economy markers
2. all ships
3. all factories of levels III and IV
4. all contract markers
5. all port mats
6. the advanced action markers "Production"
7. all event markers with the exception of the "End of Game" marker
8. all development tokens

4.1 PREPARATION ROUND 1760

A game of *spinning jenny* starts in 1760. This is a preliminary preparation round that differs from the actual three game turns.

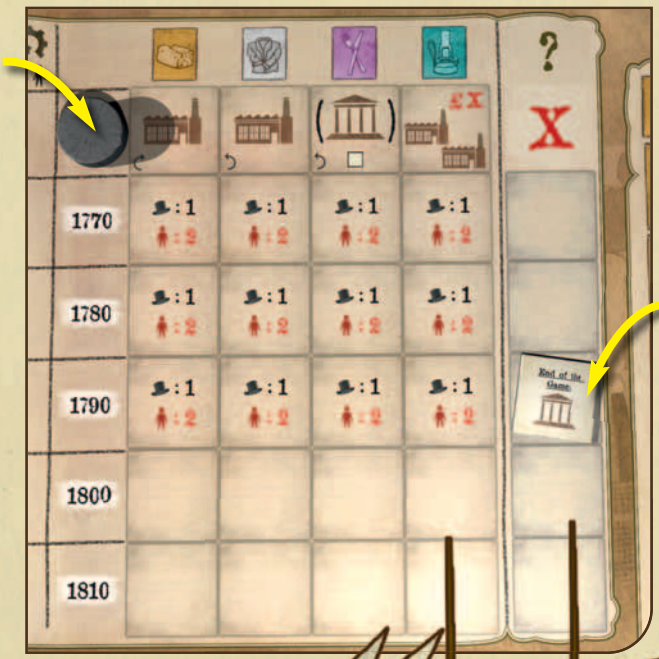
Important: the preparation round is still quite extensive even in the (less complex) *spinning jenny* version of the game.

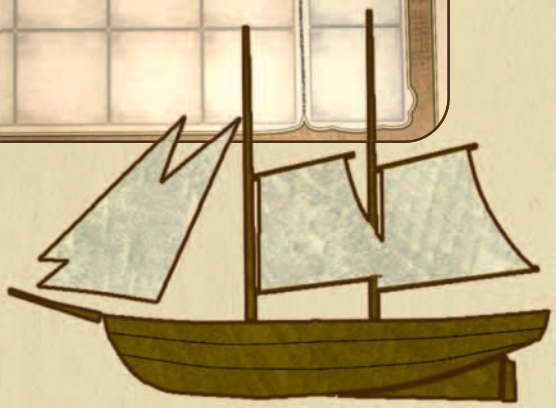
We describe only the required preparations. The detailed rules will follow in the *game turn* section of the rules. We will tell you how to set up the game for the first few games as this will speed up the preparations. Despite this you can still enjoy an interesting and balanced game (cf. the respective chapters).

After the players have gained some experience playing with the fixed set up, they can go through the preparation round on their own and decide for themselves what tactics they want to pursue.

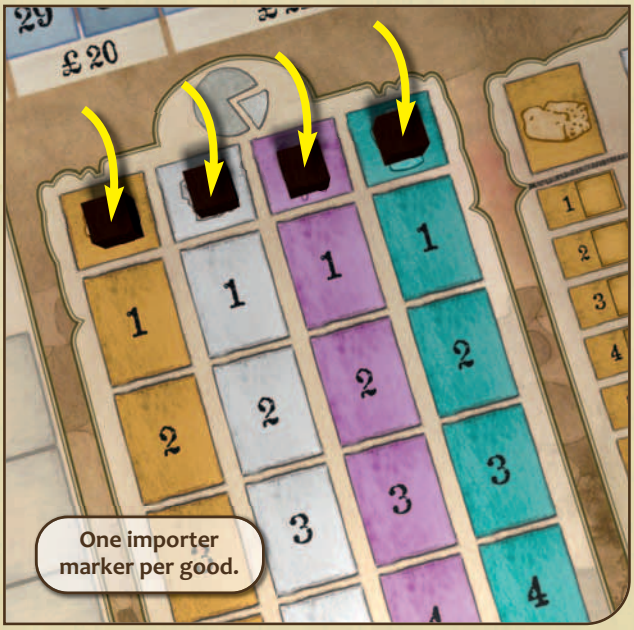
I. Game board and common supply

One player puts the game board on the table and places the timetable indicator on the 1760 space of the game board's timetable.
To mark the end of the game the event marker *End of Game* is put face up on the event space of the 1790s decade.

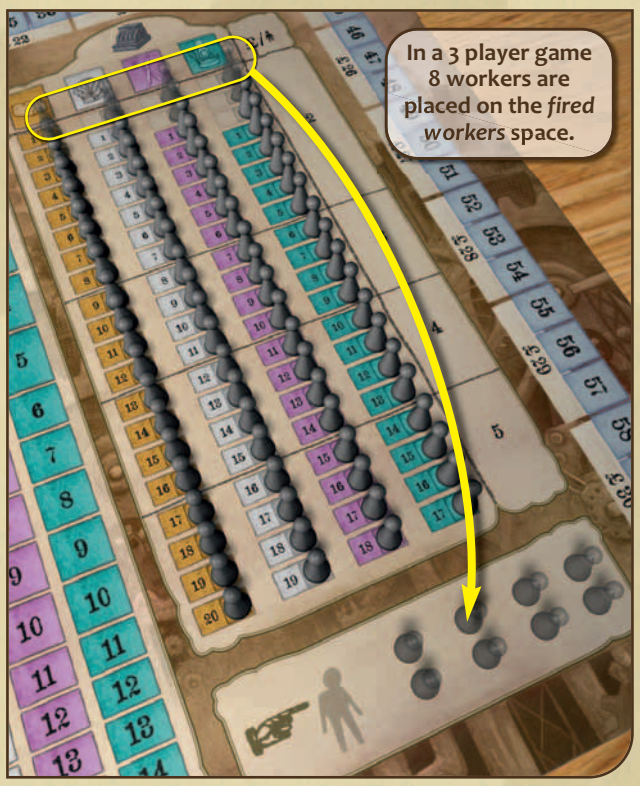




One player places one of the four neutral importer markers on each of the uppermost 'zero' spaces of the *market share table* (on the symbols of each kind of goods).



The players place one worker on each space of the *job market* – even on spaces without a number. Depending on the number of players, the players take a few workers from the *job market* according to the following chart and place them on the *fired workers* space or return them to the box. The workers are removed in each row from left to right beginning with the top row.



	On the space *fired workers*	return to the box (removed from the game)
four players	4	---
three players	8	---
two players	4	8

One players sorts the bills according to their value – they form the bank. Goods and machines are separated and put aside as common supply. There is just a single kind of goods token. According to its location on the mat the token represents food, clothes, cutlery or a lamp.

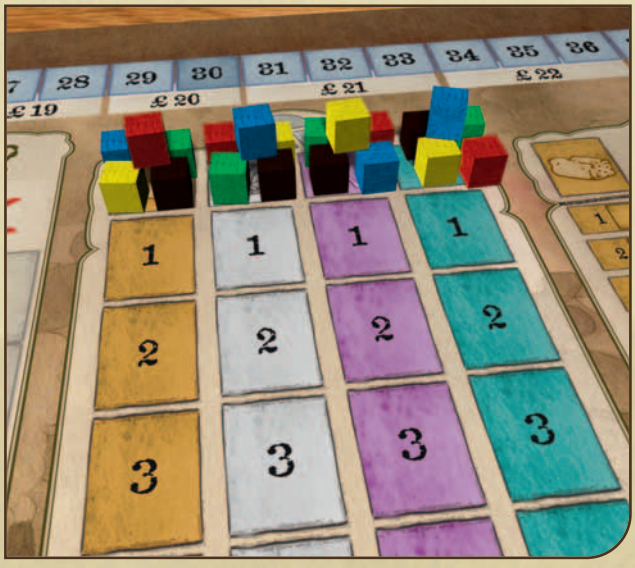
Hint: money, machines and tokens are not limited. In the unlikely situation that the game components are not sufficient, the players are to make due with replacement components. The number of workers, however, is limited to the number of tokens supplied with the game!

II. Providing the Players with Playing Pieces

Each player takes the playing pieces in his color, a factory mat and a set of factories (per kind of goods a factory of level I and II). He places these factories sorted according to level and goods next to the factory mat. He positions the four price indicators next to the price scales. The player puts his action markers aside so that they can be easily used and stacks his *distribution* and *quality* markers (the sides +1/+2/+3/+4 face up).

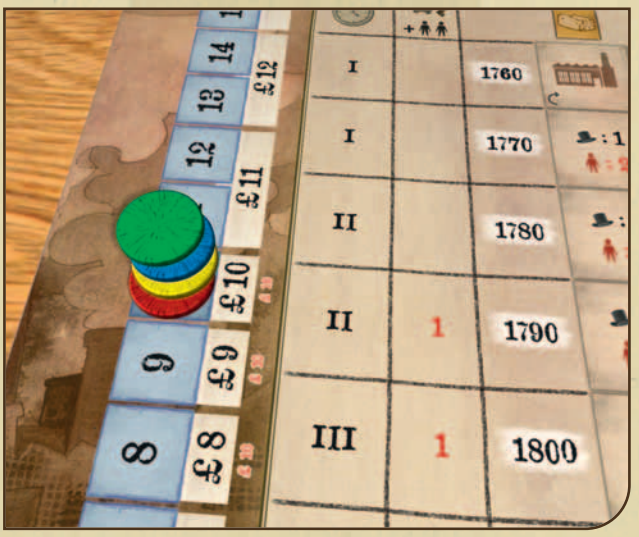
Each player puts three 5 *shares* markers in front of him; thus each player owns 15 shares. The remaining shares are returned to the bank (they are in the bank's possession).

Each player places his four activity indicators on the '0' space of the *market share table* on the game board (on the symbols).



Each player places his share value indicator on the blue space marked '10' on the share value track. **Each share has a value of £10 at the start of the game.**

The indicator is always moved along the blue spaces while the actual value of the shares can be seen on the spaces below the blue track. For shares to increase their value, the share value indicator has normally to be moved several spaces. **Hint:** *When we talk about moving the share value indicator back and forth, we refer to individual spaces on the blue track.*



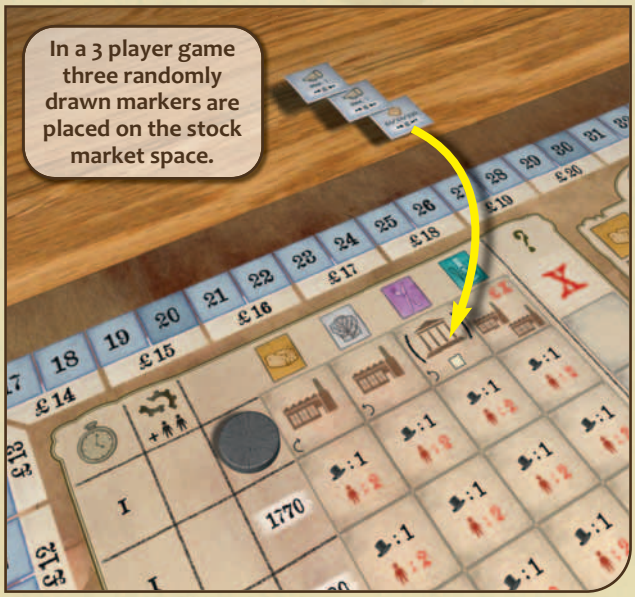
The players determine the start player in a manner that suits them and this player receives the start player marker.

III. Preparing the Special Markers Mat

One player places the mat for special markers on the spinning jenny side and puts the second time indicator on the space marked I (1760/1770).

Two and three player games: One player removes one set of light and dark grey action markers (one marker for *machinery*, *quality* and *distribution*) and returns them to the box.

One player shuffles the light grey action markers machines, quality and distribution and randomly draws – depending on the number of players – 2, 3 or 4 markers and places them face up on the game board on the space marked *stock exchange* of the timetable.



The remaining light grey action markers *machinery*, *quality* and *distribution* are put face up on the spaces of this mat in the 1760/1770 row. The player places the action markers *stock exchange* on the remaining empty light grey spaces according to the number of players.

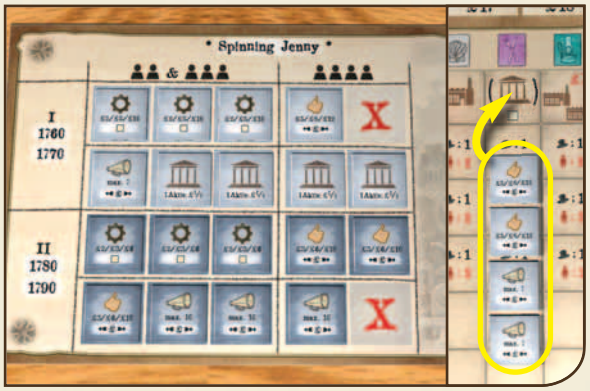
Finally the dark grey action markers *machinery*, *quality* and *distribution* are placed on the dark grey spaces of the 1780/1790 rows according to the number of players.

Predetermined Set Up

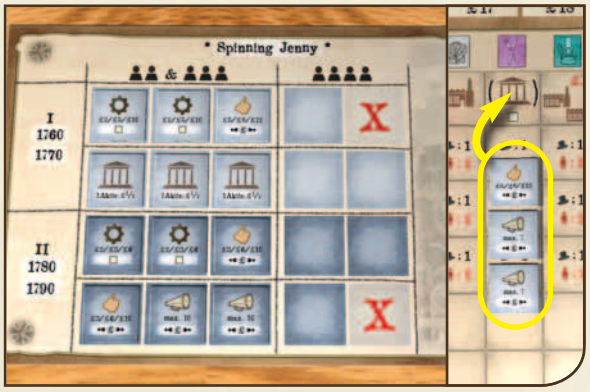
One player prepares the mat for special markers depending on the number of players as follows. In addition, he places several light grey action markers on the timetable.

Set Up Special Markers

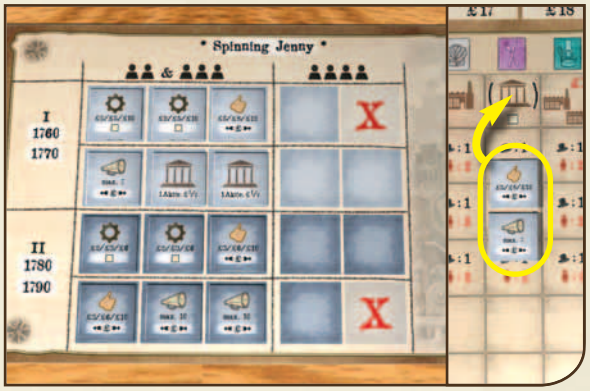
Set up for four players
Advanced action markers



Set up for three players
Advanced action markers



Set up for two players
Advanced action markers

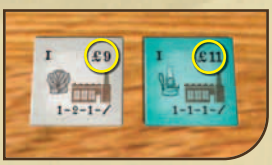


IV. Choosing and Building the First 2 Factories

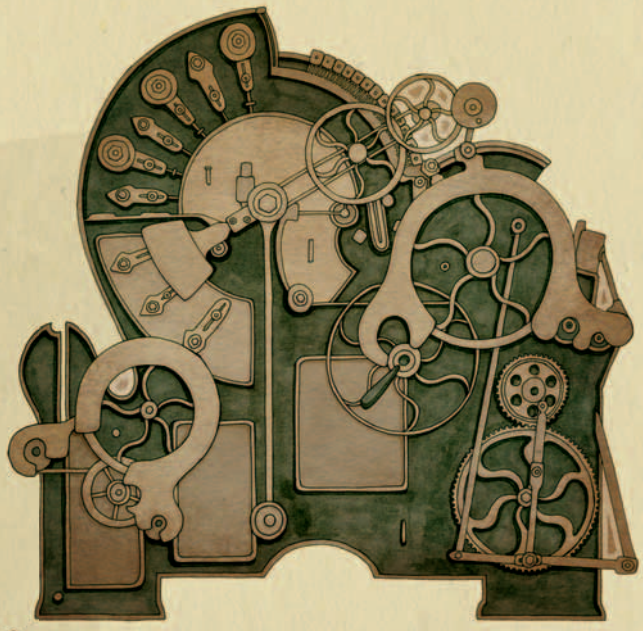
Next the players build their first factories. To do so they move the timetable indicator on the timetable from the space 1760 to the space *'first foundation'*.

The first player chooses any factory and puts a corresponding marker (indicating level 1) on the respective space of his factory mat. Building costs are given in £ (pounds Sterling) on the factory marker. The player, however, does not have to pay for them before the final stage of the preparation phase. Building costs also determine the base quality of the goods produced in that factory.

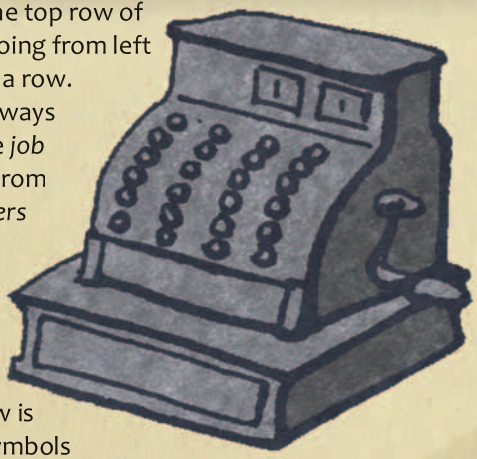
Example: *It costs £9 to build a clothes factory of level I and £11 to build a lamp factory of level I.*



The player takes enough workers from the *job market* to immediately fill the first *two* production rows of the factory entirely. The player always takes workers in 'reading direction' from the job market, i.e. always



beginning in the top row of workers and going from left to right within a row. Workers are always taken from the *job market* never from the *fired workers* space.



The required number of workers for a production row is indicated by symbols beneath the row.

When he opens a factory, the player must determine at which price he intends to offer the goods produced in that factory. He indicates the price by placing the price indicator on the *price scale* of the factory mat. The minimum price for each product is £5.

Example: *Marion has filled the first two production rows of her food factory with two workers each. She decides to offer food at a price of £6.*

On the *market share* table of the game board the player keeps track of his goods' appeal. The appeal determines the chances to sell his goods. At the start of the game appeal is determined by *subtracting* the price from the base quality of the goods. The higher the quality of the produced goods is the more appealing they are – the higher the price the less appealing the goods become.

The player places his appeal indicator for the respective goods on the corresponding space of the *market share* table of the game board.

The price always has to be determined in a manner that the appeal of goods is at least '0'. The appeal should, however, be higher because it limits the amount of goods that can be sold.

Example: *Marion's food has an appeal of 2 at the start of the game.*

The other players choose a factory in clockwise order. They fill the first two production rows with workers from the job market and determine the price and the appeal of their goods.

Once all players have chosen a factory, the timetable indicator will be moved one space to the right (to the space *second* foundation).

Beginning with the player to the right of the start player, the players take a second factory in counter-clockwise fashion. Again the players fill the first two production rows with workers from the *job market* and determine the price and thus the appeal of the produced goods.

Attention: A player can run only one factory for each kind good at the same time! In the second phase of this foundation round each player has to choose a factory for a different kind of goods. It is, however, possible for several players to produce the same kind of goods or for some goods not to be produced at all.

Predetermined Set Up

Each player places the respective factory marker of level I on this factory mat. He places workers from the *job market* in the first two production rows and determines the price and thus the appeal of the produced goods.

Set Up – factories

Set up for four players

The image corresponds to the player order, beginning with start player **blue**.

Factories

player color	blue	red	green	yellow
Factories (workers/price/appeal)	clothes (4/£6/3) cutlery (5/£7/3)	food(4/£5/3) cutlery (5/£8/2)	clothes (4/£5/4) lamps (6/£9/2)	food (4/£5/3) lamps (6/£8/3)

Set up for three players

Factories

player color	blue	red	green
Factories (workers/price/appeal)	food (4/£5/3) clothes (4/£6/3)	clothes (4/£6/3) cutlery (5/£8/2)	food (4/£5/3) cutlery (5/£8/2)

Set up for two players

Factories

player color	blue	red
Factories (workers/price/appeal)	food (4/£5/3) cutlery (5/£8/2)	food (4/£5/3) clothes (5/£6/3)

V. Start-Up Capital, Shares and Light Grey Action Markers

The players receive their start-up capital now. To indicate this the timetable indicator is moved from the space *second foundation* to the space *stock exchange* on the timetable.

Each player receives £20 as start-up capital from the bank. In addition beginning with the start player, players can sell as many shares as they want to the bank at their current value of £10. They put the corresponding amount of 5 *shares* markers next to the others in the bank and may receive single shares back and receive further cash.

In counter-clockwise fashion and starting with the right neighbor of the start player, the players pick one of the light grey action markers placed on the stock exchange and add them face up to their own action markers.

VI. Paying for Factories

Finally the players have to pay for building their newly founded factories. To indicate this they move the timetable indicator from the space *stock exchange* to the space *paying for factories* on the timetable.

Every player pays the building costs to the bank using his start-up capital.

Example: *Marion has built a food factory (£8) and a lamp factory (£11). Now she has to pay building costs of £19.*

After this the players move the timetable indicator to the decade space 1770 in the second row of the timetable. The game of ***Arkwright*** begins!

Predetermined set up

The players receive the indicated advanced action markers and the given amount as start up capital.

Start set up, start-up capital, shares and special markers

Set up for four players
advanced action markers/start-up capital

player color	blue	red	green	yellow
shares in portfolio start-up capital	10/£70	10/£70	10/£70	10/£70
advanced action marker				

Set up for three players
advanced action markers/start-up capital

player color	blue	red	green
shares in portfolio start-up capital	10/£70	10/£70	10/£70
advanced action marker			

Set up for two players
advanced action markers/start-up capital

player color	blue	red
Aktienbesitz/Startkapital start-up capital	10/£70	10/£70
advanced action marker		

Start set up - payment for factories

Set up for four players

player color	blue	red	green	yellow
building costs	£19	£18	£20	£19
remaining start-up capital	£51	£52	£50	£51

Set up for three players

player color	blue	red	green
building costs	£17	£19	£18
remaining start-up capital	£53	£51	£52

Set up for two players

player color	blue	red
building costs	£18	£17
remaining start-up capital	£52	£53

5.0 SEQUENCE OF PLAY

A game turn (= decade) consists of four cycles and the end phase (= the event phase).

A cycle is divided in three phases:

1. the economy phase: importers and the job market are adjusted,
2. action phase: each player conducts his action,
3. production phase: goods are produced and sold; shares may rise.

In each cycle *one* kind of goods is 'active'; i.e. importers of this kind of goods are relevant in the economy phase and only factories of this kind of goods produce during the production phase. Within a decade the order of goods is always the same:
food – clothes – cutlery – lamps.

The players see which kind of goods is active in this particular cycle by looking at the top of the row on which the timetable indicator is currently placed.

Hint: During the action phase players may include all factories and goods in their actions. Actions may therefore also be applied to factories that are not active in this cycle.

The start player moves the timetable indicator one space further at the start of each cycle.

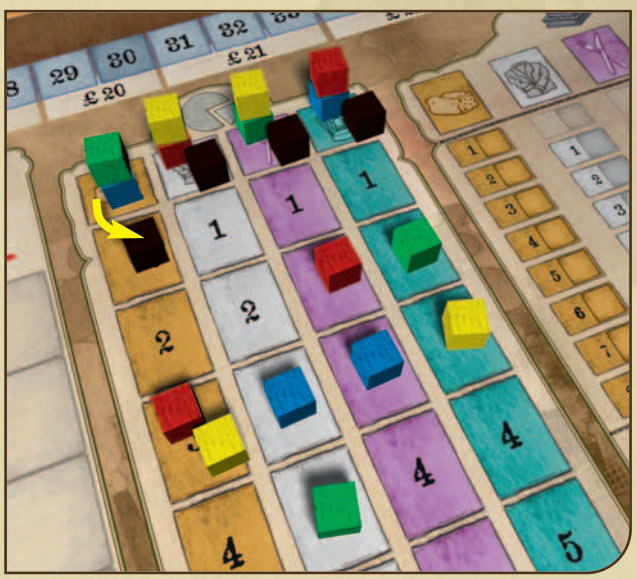
Example: *At the beginning of the first game turn Marion moves the timetable indicator from the 1770s space to the space of the first cycle. In the first cycle food is the active good.*

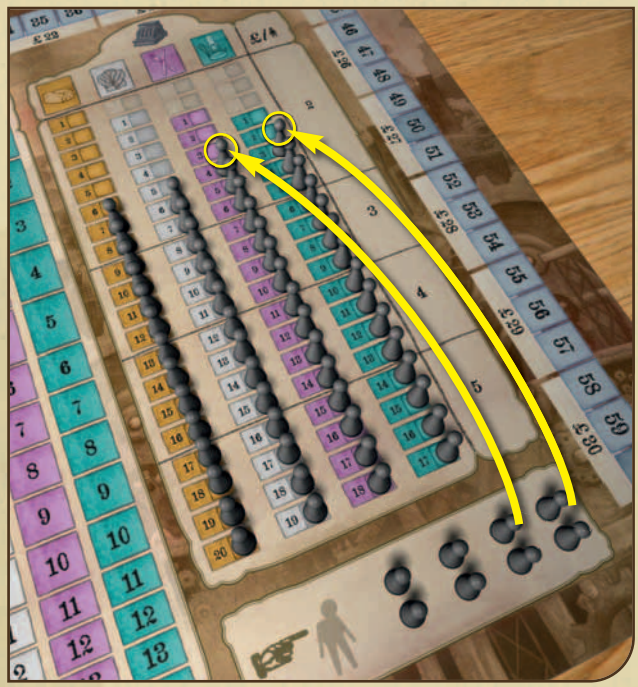
I. Economy Phase

In this phase workers return to the job market and a neutral importer progresses on the market share table.

As indicated on the timetable the start player moves the neutral importer indicator on the *market share* table in the row of the active goods one space further.

Additionally the start player moves two workers from the *fired workers* area onto the job market. He positions the workers against the reading direction, i.e. from the lowest row without a worker and within the row always from right to left. If there are not enough tokens in the *fired workers* area, the start player moves all workers onto the job market. The remainder is forfeit.





II. Action Phase

In clockwise fashion beginning with the start player every player conducts his action(s). To do so the player picks an action marker from his supply and places it on the row of the *administration* chart. Next he conducts the corresponding action and follows this up with the corresponding additional action.

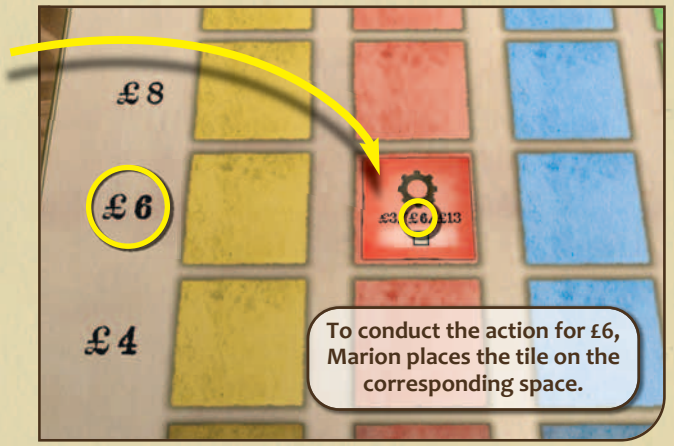
II.1 Choosing an Action Marker and Placing It on the Administration Chart

A player needs the right action marker to conduct a certain action. In addition to action markers of his own color he may use grey action markers that he has previously acquired – these are the so-called advanced action markers.

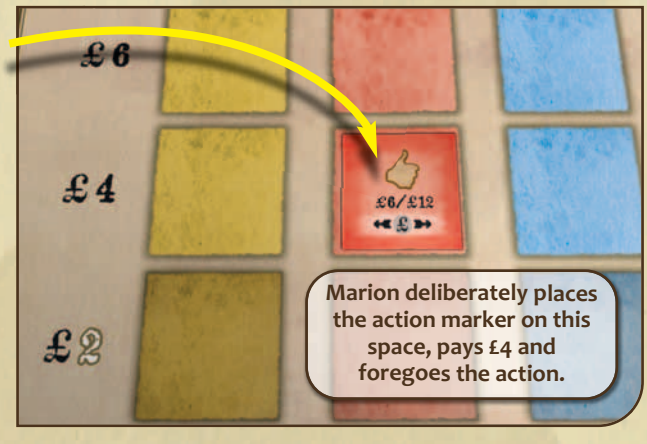
The player whose turn it is chooses an action marker and places it on an empty space of his own row of the administration chart. Placing an action marker requires a player to pay administrative costs depending on the chosen space. These costs are paid to the bank. The respective administrative costs are given at both ends of the administration chart.

It is not possible to pass! Every player must choose an action and place the corresponding marker on the administration chart. It is however possible to pass on executing the action and/or the additional action (this, however, makes only sense on rare occasions). In any case the player has to pay the administrative costs! If he does not have enough money, he has to conduct an emergency share sale, cf. 7.0.

In the case of a few action markers a player has to pay a certain amount of administrative costs if he wants to execute the respective actions. The player may place these action markers voluntarily on a space with lower administrative costs, which means that he cannot conduct the respective action.



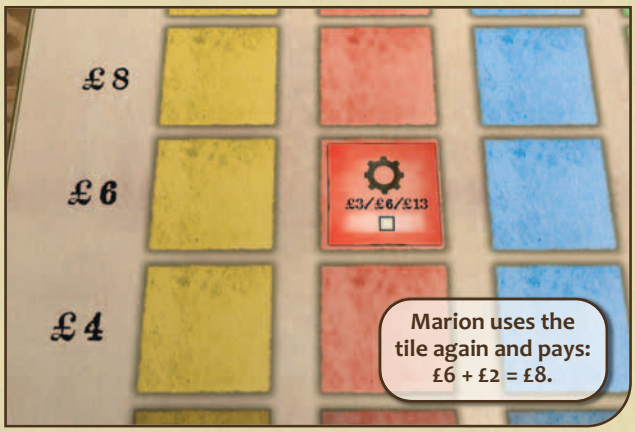
Example: *The action marker quality requires administrative costs of at least £6. Marion places it, however, on the £4 space. Thus she pays only £4 but has to pass on the action.*



During later cycles of the turn there are already action markers on spaces of the administration chart. Players may only place additional action markers on the remaining empty (i.e. unoccupied) spaces of their own row.

If a player wants to use an action marker a second time in the same game turn although this markers has already been placed on the administration chart, he may *not* displace it. For an additional use of the same action marker the player pays a fee of £2 to the bank in addition to the administrative costs of the space.

Example: *Marion pays £6 + £2 = £8 to the bank when she wants to use her colored marker machinery for a second time in the same turn.*



Certain actions require further payments in addition to the administrative costs as described within II.2 (factory, production, stock exchange).

The administrative costs, the fees for additional uses and additional costs as part of the action can be paid together.

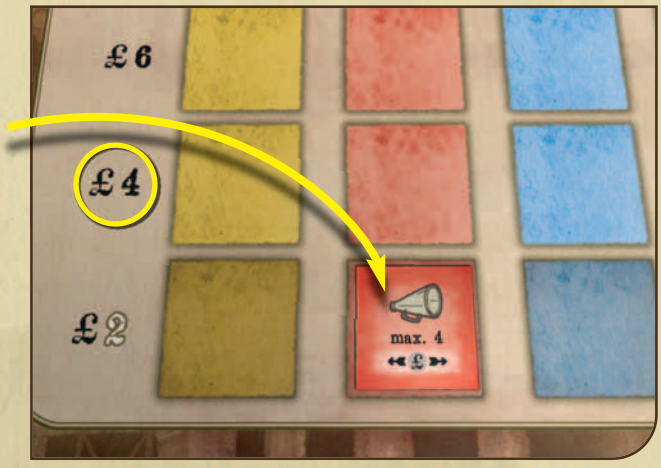
However, we recommend that you pay these amounts separately one after the other during the first few games as this will allow you to keep better track of the various costs.

II.2 Detailed Description of the Various Actions

After placing the action markers and paying the costs, a player may execute the respective action. He may also pass on conducting the action but he still has to pay the administrative costs (and perhaps the additional fee).

The effectiveness of a few actions depends on the amount paid as administrative costs (machinery, distribution, quality). It is not possible to pay more in addition to the administrative costs to increase the effectiveness of these actions.

Example: *Marion places her marker distribution in the £2 row of the administration chart; she may not pay £4 to conduct distribution activities worth £4.*



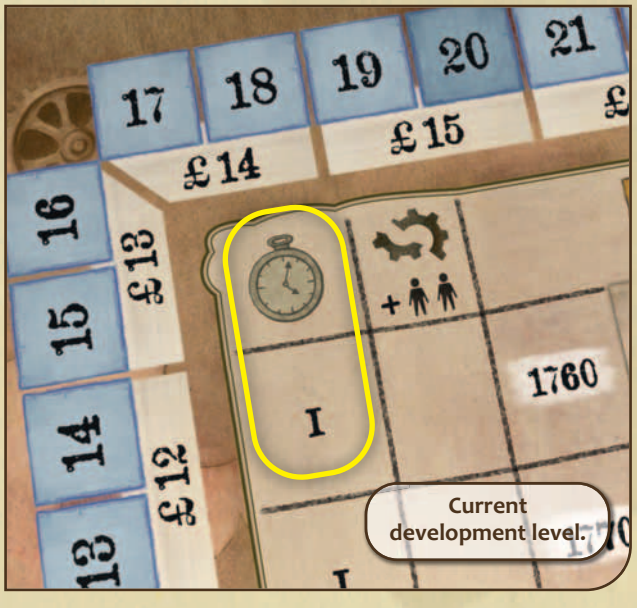
However, a player may place a marker in a higher space and pay the higher administrative costs. The effectiveness is, however, limited by the maximum amount indicated on the marker.

Example: *Marion places the quality marker on the £10 row and pays £10 to the bank although it would have made only sense to pay £6 to conduct an action. The remainder is forfeit.*

II.2.1 Factory

Choosing this action the player may build, modernize or close a factory. He may do so as often as he wants to in any order during this action. He may also conduct a single action or pass on any activity. He must, however, pay for costs resulting from these activities in addition to administrative costs.

Building a new factory: A player may choose factory markers of the current and earlier development levels. The current development level is indicated on the timetable (the line next to the current year).



Building a new factory is only possible for goods for which the player does not own a factory at that moment. It is not possible to have more than one factory for the same kind of goods. A player places a factory marker on the respective space of the factory mat. He pays the costs for building this factory as indicated on the marker in the upper right corner.

Subsequently he takes as many workers from the job market as are required to completely fill the **first** production row and have it ready to go. Production rows 2-4 remain empty and have to be activated by conducting the action *workers*. **Attention:** Only at the start of the game (during the preparation round 1760) the players hire workers to fill two production rows of their new factories.

The player immediately sets the price for his goods. He does so by placing the price indicator on the price scale on his factory mat. The minimum price for each product is £5. The player may not change the price of his goods at any point in the game – this is only possible when he conducts the respective additional action!

The player indicates the appeal of his goods on the market share table. The appeal determines the chances to sell these goods.

Appeal is always the result of quality and distribution minus the price. Only these three factors may be influenced directly. Appeal is always automatically adjusted whenever one of these three factors changes.

General rule: The higher the quality and the better the distribution of the produced goods are the more appealing they become – the higher the price the less appealing the goods become.

The player places his appeal indicator for this kind of goods on the respective space (i.e. indicating the appeal of the goods) of the market share table on the game board.

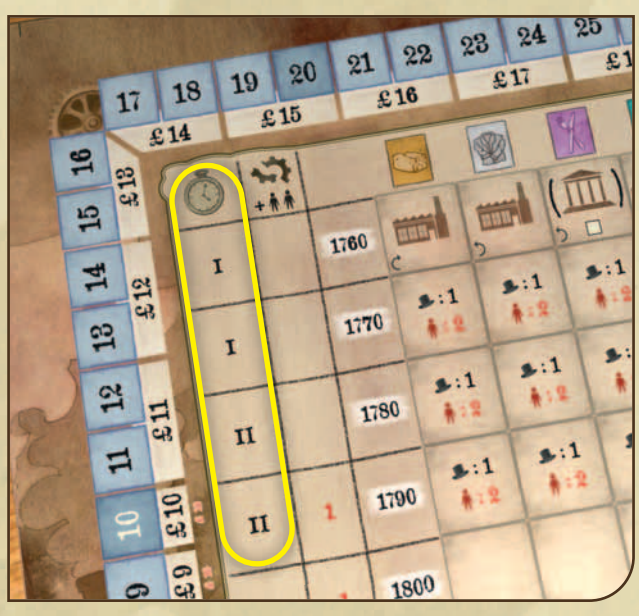
Example: *Marion's food factory produces food of base quality 8 at level I. She sets the price at £5. The food produced in a factory thus has an appeal of 3 (8 minus 5).*

Reminder: the price is always to be set in a manner that the appeal is at least '0'.

Appeal limits the amount of goods a player may sell at the market. If a player places the appeal indicator on space 2, he may sell a maximum of two goods. Should his factory produce more than two goods, he may not sell the additional goods!

In addition, whoever has more appealing goods may sell them *before* his rivals – this can be of importance in case of excess supply. The player with the most appealing goods also receives a bonus when he increases his share value.

Modernizing an existing factory: the player removes the factory marker that has so far been used and replaces it with a marker of the same kind of the next level. It is only possible to modernize up to the current level as indicated on the timetable.



To modernize a factory a player pays as much as the quality of the new marker indicates. Modernizing is thus as expensive as building a new factory of this level. In comparison to building a new factory, modernizing has the advantage of allowing players to keep all the machinery, workers, distribution and quality markers of the old factory.

After concluding all modernizations the player adjusts the appeal indicators on the market share table because the quality of the produced goods has improved.

If a factory had been out of date and has now reached the current maximum level, the player will have to fire all additional workers hired because of the factory's obsolescence. He places them on the fired workers space. Thus it is possible for a player never to use such additional workers during the production phase and consequently never to pay them.

Closing down a factory: The player removes all markers of the respective factory as well as all workers and machinery. Machinery is returned to the common supply and workers are placed on the fired workers space. The factory markers, quality and distribution markers as well as the price indicator are returned to his own supply. Subsequently the player puts the appeal indicator on the zero space of the respective good.
A player may close a factory in which there are additional workers because the factory had become obsolete.

These workers are also placed on the fired workers space – just like the other workers.
A player may not close factories that he built during this game turn. In addition, he may not build a factory of the same kind and level that a factory had which he just closed in this game turn.

If a player closes a factory, he keeps any goods in a warehouse. He is however not allowed to sell them regularly during the sale phase because there is no regular selling price for these goods and the appeal indicator on the market share table is placed on the '0' space. He may only sell goods regularly after building a new factory of this kind. Otherwise he may only sell his goods using a warehouse sale, cf. II.2.6.

Additional action: The action marker *factory* provides the opportunity to adjust prices as an additional action. This additional action is conducted after the main action.

II.2.2 Workers

Choosing this action a player may hire workers to activate a new production row. Alternatively a player may fire workers to close an existing production row.

Hiring workers: To hire new workers the player takes as many workers as he wants to from the job market and places them on the respective production rows of his factories.

There are no further costs for hiring workers in addition to the administrative costs. A player pays the workers in his factories during the production phase of the goods. It is possible to hire workers and replace them in a subsequent action with machinery without the workers ever having been paid (i.e. having worked during a production phase).

During the final game turn a player may not hire additional workers in factories that had been active during a previous cycle. Thus there is no creation of an artificial demand for goods without the player having to pay for the base salary of hired workers.

New workers must be taken from the job market in 'reading direction' (i.e. from the uppermost row of workers and within a row from left to right).

A player may distribute workers among as many factories as he wants to. A player may take workers from the fired workers space as an exception when there are no more workers in the job market. If there are no workers in that space either, he may not hire any further workers at the moment.

It is possible to place individual workers on spaces of a production row even if this production row is not completely filled or the factory cannot produce any goods on this production row (e.g. the production row no. 4 of factories of level I). In most situations, however, this does not make sense!

A player must place workers immediately; it is not possible to hire workers in advance and take them from the job market without assigning them to a specific production row.

Firing workers: A player may fire as many workers as he wants to from his factories to save money during the production phase. However, the first production row of each factory built has to remain active. The first workers to be fired are always those of the production rows furthest to the right. If there are no workers in a production row, the player will have to return machinery placed in that production row to the supply.

A player places fired workers onto the fired workers space. It is not possible to fire workers and position workers from the job market on the same spaces. It is also not possible to fire workers that were hired during the same action.

Additional workers who had to be hired because of the factory's obsolescence may not be fired as part of this action.

Additional action: The action marker workers provides the opportunity to take a grey action marker as an additional action. This additional action is conducted after the main action.

II.2.3 Machinery

Conducting this action, a player purchases one or more machines. The amount of machines he may take from the common supply is limited by the chosen action marker and the administrative costs paid.

If a player pays the additional fee of £2 because he reuses a marker that has already been placed on the administration chart, he may not use these additional £2 for this action. Only the base administrative costs are relevant!

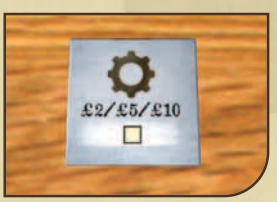
The action marker *machinery* indicates several costs. If a player pays administrative costs higher or equal to the leftmost value, he will receive one machine. If he pays administrative costs higher or equal to the middle value, he will receive two machines.

The costs of £13 indicated on the colored markers of each player cannot be achieved in the spinning jenny version of the game.

Example: *Marion may purchase two machines at the most using this action. To do so she has to pay at least £6 of administrative costs.*

If a player pays higher administrative costs than required for a certain number of machines, the excess amount is forfeit.

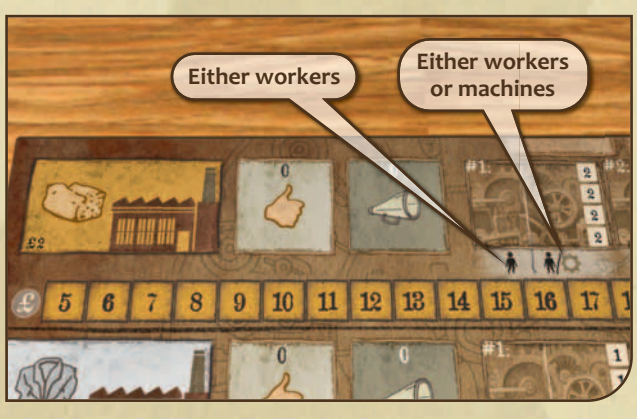
Example: *Marion has placed her colored action marker machinery in the £4 row and has paid £4 to the bank. She purchases only one machine; £1 is forfeit.*



Using the advanced action marker of the first level (light grey) the player may purchase up to 3 machines. To do so he has to pay administrative costs of £10. The marker of the second level (dark grey) offers the opportunity to purchase three machines if a player pays administrative costs of £6.

The player takes the purchased machines from the common supply. He must place them in his factories immediately and must use them to replace workers.

The factory mat indicates which activities must be done by workers and which activities can be done by machines and workers. To place a machine on a certain space, the space must have previously contained a worker – a player may never place machines on unoccupied spaces of the factory. The player may distribute several machines purchased at the same time among one or more of his factories. The player moves the replaced workers to the fired workers space. They may not be placed on another space of the player's factories.



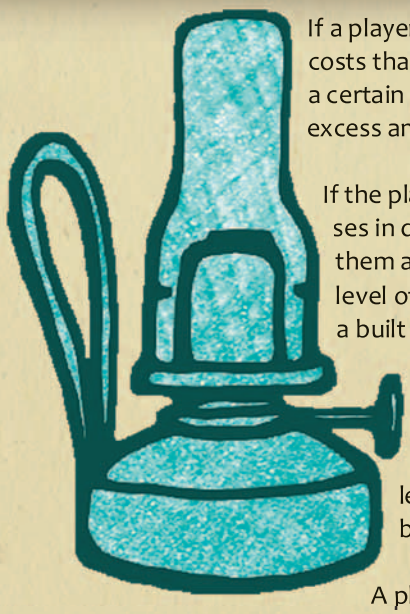
Additional action: The action marker *machinery* provides the opportunity to take a grey action marker as an additional action. This additional action is conducted after the main action.

II.2.4 Quality

Conducting this action a player increases the sales opportunities for his goods permanently. A player may only use the actually paid administrative costs. If a player pays the additional fee of 2 £ because he reuses a marker already placed on the administration chart, he may not use this additional fee for this action. Only the base administrative costs are relevant!

The colored action marker *quality* indicates two costs. If a player pays administrative costs higher or equal to the value on the left, he advances the quality one level. If he pays administrative costs higher or equal to the value on the right, he will advance the quality two levels. The grey action markers indicate three costs for increases in quality of one, two or three.

The costs of £12 for two increases (on the colored markers of each player) or three increases (on the light grey markers) cannot be reached in the *spinning jenny* version of the game.



If a player pays higher administrative costs than required for an increase of a certain number of quality levels, the excess amount is forfeit.

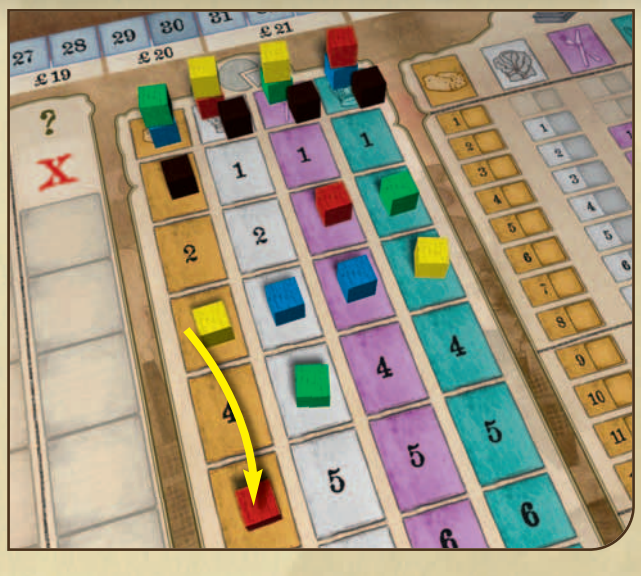
If the player pays for several increases in quality, he may distribute them among his factories. Once a level of quality has been reached in a built factory, it is never lost. Quality levels are always retained even if a factory is modernized. A player will, however, lose the quality level of a factory that has been closed.

A player indicates an increase of quality by placing the quality marker on the corresponding space of the factory mat. The player turns the marker to the corresponding value to indicate this increase. The quality of the goods produced in a factory equals the sum of the base quality of the factory (= building costs) and the quality marker. Each quality marker has six levels.

Levels five and six are on the flipside of the quality marker. They can not be obtained *spinning jenny* version of the game.

Changes in quality increase the appeal of the respective goods and the player immediately moves the appeal indicator upwards in the corresponding rows of the market share table.

Example: *Marion increases the quality of her food factory by two levels and places the quality marker accordingly on the factory mat. Doing so she increases the appeal of food and the appeal indicator on the market share table is also moved upwards.*



Additional action: The action marker quality provides the opportunity to conduct a price adjustment as an additional action. This additional action is conducted after the main action.

II.2.5 Distribution

Conducting this action a player increases the sales opportunities for his goods temporarily. A player may only apply the actually paid administrative costs to this action.

If a player pays the additional fee of £2 because he uses a marker that has already been placed on the administration chart, he may not use these additional £2 for this action. Only the base administrative costs are relevant!

The action marker *distribution* limits the maximum effectiveness of distribution activities. Using his own marker, a player may conduct distribution activities worth a maximum of £4. If he pays higher administrative costs, the remainder will be forfeit. The advanced action marker raises the maximum amount for distribution activities to £7 or £10 respectively.

The player indicates distribution activities by placing a distribution marker on the corresponding space of his factory mat. The player turns the marker in a way that shows the proper value. This indicates the increase in distribution.

A player may distribute the paid administrative costs among several distribution activities in his factories as he sees fit.

The costs of each individual increase depends on the new level of the marker. To place a new distribution marker in the factory, a player pays administrative costs of just £1. To increase it by 1 to level 2 he must pay £2. To increase it from 2 to 3, a player pays £3 and so on.

Example: *If Marion wants to raise the distribution activities in her food factory from 0 to the maximum amount of plus 4, she will have to pay £10 as administrative costs (1+2+3+4). To raise the distribution marker in her clothes factory from +1 to +3, she has to pay £5 as administrative costs.*

Distribution activities increase the sales opportunities a player has. They have the same effect as a quality increase but only for a short-term. Using distribution a player may raise the appeal of goods in each of his factories by a maximum of four levels. For each increase of the distribution markers the appeal indicator of the respective goods is advanced one space on the market share table.

In contrast to quality, however, the effect of distribution activities is reduced by one level after each production phase.

Additional action: the action marker *distribution* provides the opportunity to conduct a price adjustment as an additional action. This additional action is conducted after the main action.

II.2.6 Stock Exchange

Conducting this action a player may purchase shares or sell them, pay loans back, and sell goods from his warehouse. A player may conduct these options in any order during this action. He may also conduct just a single option or pass on all of them. The administrative costs have to be paid in advance.

Purchasing shares: A player may buy as many of his own shares from the bank as he wants to. He may not purchase shares of any other player. The value of an individual share is indicated by the space beneath the share price indicator.

If the share price indicator of the player is in one of the first 10 spaces of the share price track, the minimum price for purchasing shares is £10.

Example: *Marion's share price indicator is on space 22. She may purchase shares at a price of £16 from the bank.*

Using the advanced action *stock exchange*, a player pays only half price (rounded up) for the first share bought this game turn. This may lower the actually paid price below £10. For each additional share purchased in the same game turn the player has to pay the full price. The share price does not change because a player purchased shares.

Paying loans back: As long as a player has to pay loans back, he may not purchase any shares from the bank! All loans have to be paid back first. The number of loans that can be paid back at the same time is not limited. For each loan a player must pay £13 to the bank. If a player has enough cash on hand, he may purchase shares after having paid back his loans.

Selling shares: A player may sell shares from his portfolio to the bank at the current share value. If the share price indicator is on one of the first 10 spaces of the share price track, the lower value beneath the space indicates the selling price of the shares.

Example: *Marion must sell more shares. The share price indicator is on the space '9.' As a consequence she receives only £9 per share she sells. If she bought any shares while the indicator is on this space, she would have to pay £10 per share.*

Selling shares regularly does not influence the share price. An emergency sale of shares that is not part of the *stock exchange* action, however, does influence the share price.

Hint: As part of the event 'end of game' every player receives the opportunity to purchase shares without having to choose the stock exchange action.

Selling goods from the warehouse: A player may sell as many goods from his warehouse as wants to. However he will not obtain the price chosen by him on the price scale of the factory mat but a fixed price. The fixed prices are as follows: **food £2; clothes £3; cutlery £4; lamps £5**

These prices are indicated on the left of the factory mat. Selling from the warehouse is part of the stock exchange action. It is only a stopgap measure in case of overproduction.

Additional action: The action marker *workers* provides the opportunity to take a grey action marker as an additional action. This additional action is conducted after the main action. The light grey stock exchange action marker does not have an additional action.

II.3 Additional Actions

Every action marker provides an opportunity to the players to conduct an additional action in addition to the primary purpose of the action marker (the exception is the advanced action marker *stock exchange*). The symbols 'price adjustment' and 'grey action marker' indicate this additional action. A player may execute the additional action even if he did not conduct or did not want to conduct the main action. An additional action is conducted after the main action has been concluded.

II.3.1 Price Adjustment

After conducting the actions *factory*, *quality* or *distribution*, a player may adjust the price of the goods produced in all factories that were affected by the main action of the marker.

Price adjustment cannot take place at any time. Prices may **only** be adjusted by a player after he has started the additional action 'price adjustment' and the main action had had an effect on the factory.

The actions *quality* and *distribution* offer a player the opportunity to adjust prices for factories that were not affected by the main action. In this case the player has to spend £1 of the administrative costs per good whose price he wants to adjust in this manner.

Example: *Marion owns three factories and conducts the action distribution, paying £4 as administrative costs. All of her factories have a distribution marker indicating +1. She spends £2 of the administrative costs in the food factory to increase the marker to +2. She spends £1 each on the other two factories. She may not increase the distribution markers in these factories as she needs £2 to raise the distribution markers to +2 in each of these factories. Since she has conducted distribution activities in all three factories, she may, however, adjust the price in all factories.*

A player can set the price ranging from a minimum of £5 up to a maximum of £25 on the price scale of the factory mat!

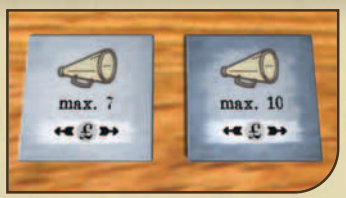
After adjusting the price a player must also adjust the appeal on the market share table. The price may never be adjusted in a way that the appeal of the goods would be less than '0'.

II.3.2 Taking Grey Action Markers

After conducting the actions *workers*, *machinery* or *stock exchange*, a player may take a grey action marker (**exception:** the light grey *stock exchange* action marker does not offer the opportunity for an additional action). Conducting this additional action is free of charge.

The player takes a grey colored action marker from the special markers mat. This action is limited to markers that are placed on the current level of development or above. In the 1770s decade players may therefore only pick light grey action markers from the two uppermost rows. In the 1780s seven 1790s decade they may take also the (improved) dark grey markers of the lower rows.

The grey action markers can be used like the action markers colored in a player's color. They are, however, more effective. Once a player has obtained a marker, he keeps it until the end of the game.
A player may never own two identical action markers of the same shade of grey. However he may own a light and a dark coloured action marker of the same name.



Example: *Marion owns the light grey and the dark grey action marker 'distribution'.*

Bearing these restrictions in mind, a player may own as many action markers as he wants to.

III. Production Phase

After all players have conducted their actions, they produce the active good, sell it and pay wages to their workers as well as the operational costs of their machines.

Selling goods causes the share value to rise. Factories that produce other kind of goods are irrelevant in this phase. They do not produce and the workers are not paid any wages.

Factories produce the active kind of goods automatically. A player cannot pass on production even if it is obvious that he will lose money by producing a good. Main and additional actions are not possible any more!

III.1 Production and Sale

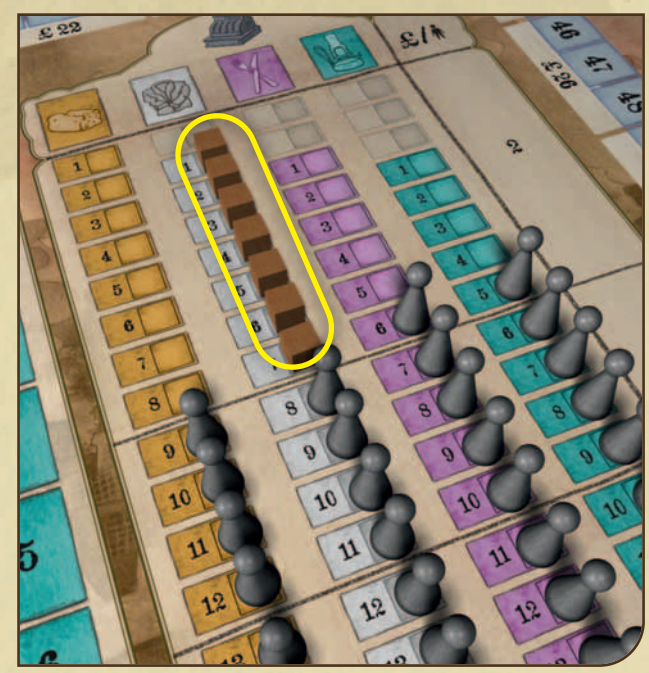
At the start of this phase every player should check if the appeal indicator for the active good is placed correctly. A production row can only produce a good if the required amount of tokens has been placed there. If a production row requires, for example 3 workers (and/or machines) and there is only 1 worker, the row does not produce any goods.

Each active production row produces the amount of goods corresponding to the level of the factory. To the right of each production row the amount of produced goods is indicated for each row.

Example: *The first two production rows of Marion's clothes factory of level I are occupied with workers and machines. Thus the factory produces 1+2 = 3 goods. The quality is 9 as determined by the factory +0 quality (she did not invest in additional quality), +2 distribution because of the distribution marker. The selling price is £7. As a consequence the appeal of the clothes produced in Marion's factory is 9+0+2-7 =4.*

The job market table indicates the demand for goods in England. Each numbered empty space in the row of the active goods represents a group of buyers. The start player places a goods token from the common supply on each of these spaces. Spaces that contain workers and spaces that are not numbered do not generate demand and remain without goods token.

Example: *There is demand for seven clothes in England.*



Supply is determined by the amount of goods that all players have produced in the production rows of factories of the active kind of goods, the amount of goods stored from previous rounds and the position of the importer.

If a player does not own a factory of the active kind of goods, he may not sell any goods even if he has some stored from previous turns.

If the demand in England is higher than the supply, the players may sell all of their produced goods in clockwise fashion one after the other.

How much a player may sell is, however, **limited by the appeal of his goods!** If a player produces 3 or more goods but their appeal is only 2, he may only sell 2 goods.

If supply is higher than demand, the players will have to check who may sell how many goods:

a. To keep track of things the first player places a goods token next to the appeal indicator showing the highest value (on the market share table).

b. The first player calls out all players whose appeal indicator is in the same space as the token. These players take one goods token each from the job market and place it in their factory of the active kind of goods as long as they have not taken as many goods token as that factory produces.
A player may not voluntarily pass on selling goods of the current production as long as there is still demand in England.

c. If a player has taken as many goods tokens as a factory has produced but has not reached the number of goods that he is allowed to sell, he may voluntarily sell stored goods of the active kind of goods. To do so he takes a goods token from the job market and places it next to the sold goods on his own mat. In addition he returns a goods token from his warehouse to the common supply.

d. The first player moves the initially placed token to the next space on the market share table and calls out all players whose appeal indicator is placed on this or any higher space. Players whose goods have the most appeal are always the first players to sell their goods.

The importer is also taken into account when selling goods. Whenever it is his turn, the first player removes a goods token from the job market and places it separately aside.
If there are players called out who have already sold the maximum amount of goods (because of the appeal of their goods) or have sold all their produced or stored goods, they will be skipped over.

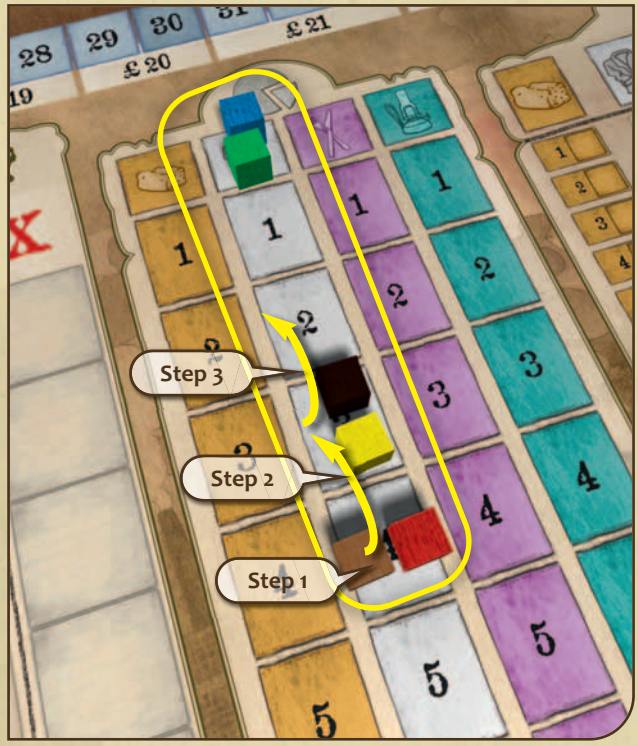
Example: *Marion produces only three goods in her food factory and does not have any stored food. She is called out for a fourth time and indicates that she cannot sell any further goods.*

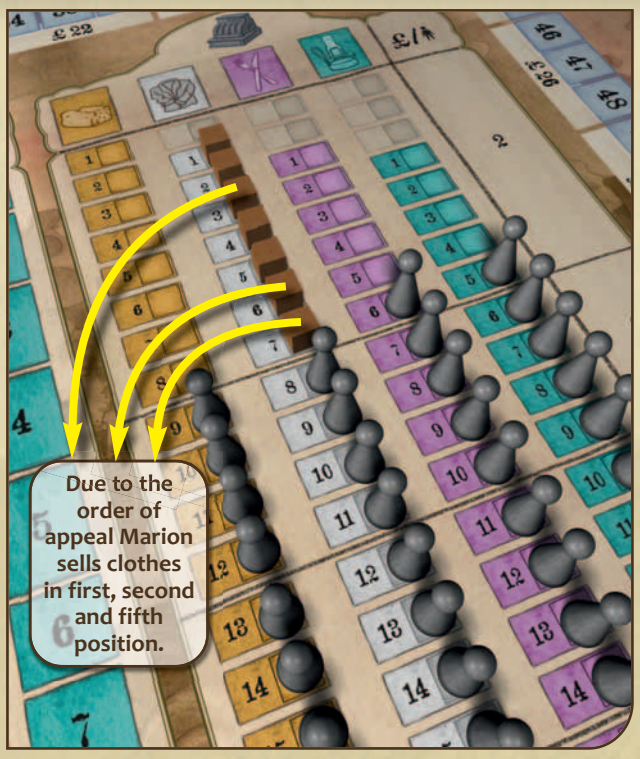
If – when the first player calls out players – there are fewer goods tokens in the job market than there are players who want to sell goods, the order will be determined as follows:

1. The player who has the most appealing goods (whose appeal indicator is the most advanced).
2. In a tied situation the importer always comes last.
3. The higher quality of the goods (the base quality plus the quality marker).
4. If there is still a tie, the concerned players will take a token at the same time. In order to give goods tokens to all players involved in such a tie, additional good tokens may be taken from the common supply if necessary.

This procedure ends when all goods tokens from the job market have been distributed or all players have sold their produced and stored goods. In this case the importer receives as many tokens as he might have stored according to its position on the market share table (as long as there are still tokens on the job market). Excess tokens from the job market are returned to the common supply.

Example: *Step 1 – Marion sells 1 clothes first because her appeal indicator is the single indicator on space 4. Step two – the initially placed token is moved to space 3 and Marion sells her second clothes. Next Harold sells 1 clothes and then the importer. Step three – now Marion places the initially placed token onto space 2 and sells her third clothes followed by Harold and the importer.*



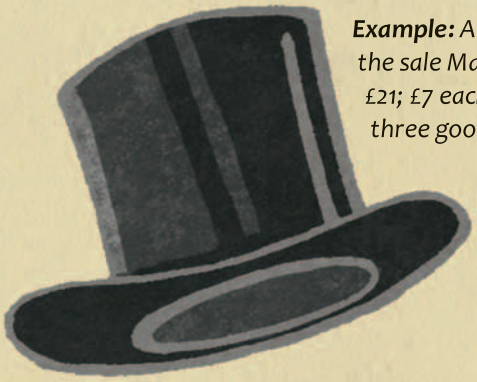


Demand has been met and no further goods may be sold in England. Even if demand had been higher, Harold would not have been allowed to sell more than three goods because the appeal of his goods is three.

If a player has produced more goods in this factory than he has received goods tokens from the job market, he will take a corresponding number of goods from the common supply. He must keep these separate from the goods tokens he has received from the job market!

Attention: *Experienced* players will immediately recognize when all produced goods may be sold so that they can skip these detailed procedures. Especially for the first games, however, we highly recommend to follow these procedures strictly.

For each sold goods token on his factory mat a player receives money equal to the price set for this kind of good on the player's price scale. The sold goods tokens remain on the factory mat.



Example: *At the end of the sale Marion receives £21; £7 each for her three goods.*

III.2 Increase in the Share Value because of Sold Goods

If players operate successfully on the market, their share values will rise.

Each player who has sold precisely one good in this production phase advances his share value indicator *one* space. Each player who has sold two or more goods advances his share value indicator *two* spaces (it does not matter if he has sold more than two goods). A player who has not sold any goods does not advance his share value indicator even if he owns a factory that did produce during this production phase.

If the player whose appeal indicator (for the active good) is the single most advanced has sold at least one good, he will advance his share value indicator an additional space. His indicator must also surpass the indicator of the importer.
Finally the single player who sold the most goods advances his share value indicator an additional space. This player has to have sold more goods than the importer.

Subsequently all players return their goods tokens and those of the importer to the common supply.

A player may advance up to four spaces on the share value track in this phase. In case of a tie no additional steps for appeal or the most sold goods are granted.
It is obligatory to advance on the share value track. A player may not pass on such advances!

Example: *Marion advances four spaces – two spaces because she sold at least two goods in England, one space because her goods had the most appeal and one space because she sold the most goods. Harold advances two spaces because he sold two goods.*

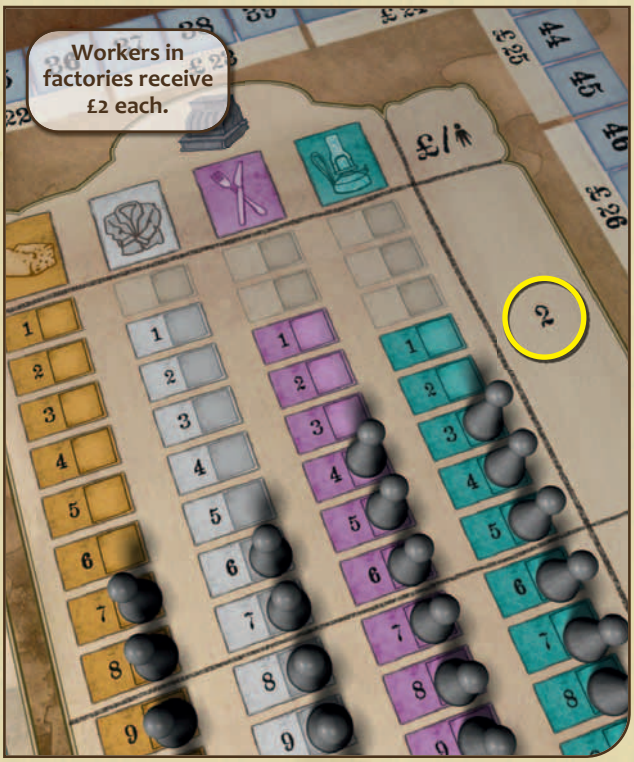
III.3 Paying Wages and Operating Costs of Machinery; Effects of Distribution

Regardless of the economic success, the players must pay for markers and machines in factories of the active kind of goods.

Players must also pay wages to workers and operating costs for machines in production rows that did not produce anything.

Each machine causes operating costs of £1. Each worker's wage is indicated to the right of the job market – in the row next to the lowest empty space.

Example: *Marion has three workers and one machine in her clothes factory. The wages are set at £2 and she has to pay £7 to the bank (3 X £2 wages, 1 X £1 operating costs for machines).*



The distribution markers for the active factories (if there are any) must be reduced by one. Markers of level 1 are completely removed from the factory mat. As a consequence the players must adjust the appeal indicator on their market share table.

Should the players appeal indicator be reduced to less than zero in theory, it remains on the zero space. As an exception the price is now adjusted and reduced by one in order to comply with the formula ***quality + distribution – price = appeal***. However, in this case the share value indicator has to be moved back 1 space.

III.4 Storage and Expiry

The players store goods that they were not allowed to sell. They place the respective good tokens on the last spaces of the active factory's price scale.

Players may not use the spaces in which they store goods as spaces for the goods' price. In the rare circumstance that a player's price indicator has already been placed on one of these last spaces, he may only store as many goods of this kind as there are empty spaces to the right of the price indicator.

Each player may store up to 5 goods of any kind. If he surpasses that limit, he may return goods from the warehouse to the common supply in order to store different goods.

Example: *Marion has stored two food and one clothes. Now she wants to store three lamps. To do so she has to discard either one food or one clothes.*

IV. End of the Cycle

At the end of the first three cycles the player to the left of the start player becomes the new start player. This is followed by the next cycle and the first player advances the timetable indicator. The new economy phase starts.

The end of turn phase follows after the fourth cycle.

6.0 END OF THE TURN PHASE

The start player advances the timetable indicator to the event space.

I. Returning Action Markers

All players return their action markers from their row of the administration chart to their supply. All markers in their own color and the grey markers they have previously obtained will be available to them in the next turn.

II. Event Phase

In the *spinning jenny* version of ***Arkwright*** there's only the event 'end of game' at the end of the final game turn (1790).

As long as the end of game has not been reached, there is no event and the start player moves the timetable indicator to the year in the next row.

If a new level of technology has been reached, the first player moves the timetable indicator on the special markers mat to the corresponding line.

If the first player moves the timetable indicator to the event markers end of game, the game ends.

As indicated on the event marker all players will conduct a final common stock exchange action:

Each player has the opportunity to sell any goods remai-

ning in his warehouse at the base price, to pay back loans and subsequently purchase as many shares at their current value as his cash supply allows. After that the winner of the game is determined.

Example: *Marion's share value is £22 at the end of the game because her share value indicator is on space 41. She already owns 16 shares and still has cash worth £84. Marion purchases three shares at a price of £66 at the end of the game. She has 19 shares in her portfolio and £18 of cash.*

III. Changing the Start Player

At the end of the game turn (decade) each player multiplies the number of his shares with the share value. The player whose portfolio is valued the least determines the new start player. In case of a tie the tied player who has less cash determines the new start player. If there is yet another tie, the tied player who sits farthest away from the current start player will determine the new start player.

It is possible to determine the current start player as a new start player.

IV. Obsolescence of Factories

Before a new decade begins all players determine whether the factories become obsolete. In the *spinning jenny* version of the game, this happens only at the start of the last game turn (1790). All factories of the indicated level become obsolete.

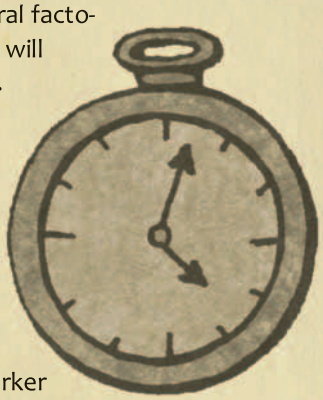
In each of his factories that become obsolete a player must hire two workers whom he takes from the fired workers space (not from the job market). He places these workers onto the factory mat next to the factory marker (i.e. not on a production row).

In the 1790s Marion's food factory becomes obsolete. As a consequence she must place two workers onto the factory.

The new workers are required in order to guarantee the same quality and quantity of produced goods in the obsolete factory.

This happens automatically and cannot be prevented by the player! In particular it is not possible to close the factory now.

If there are not enough tokens in the fired workers space, the missing workers are taken from the job market. In the rare case that there are not enough workers for obsolete factories in the job market, the tokens that are there will be individually distributed among the factories (not players) in turn order beginning with the start player. If several factories of a player are concerned, he will start with the uppermost factory.



For each worker that could not be hired because of a lack of workers, a player has to pay a fee corresponding to the current wage of £5 to the bank. In this case the factory does not receive an additional worker. The player does not have to hire a worker later on when there are workers in the space fired workers or in the job market.

Example: *Marion and Angelica each own a factory that has become obsolete. Harold has two obsolete factories. Altogether there are only five workers accessible. Marion and Angelica each take one worker for their obsolete factories. Next Harold takes one worker for each of his factories. The last remaining worker is given to Marion. Angelica must pay £5 and Harold must pay £15 for the workers they could not hire.*

A player must pay these additional workers normal wages during the production phase. He may not fire them as part of the workers action.

If a player brings a factory up-to-date (i.e. modernizes it), he places the additional workers back onto the fired workers space.

7.0 EMERGENCY SALE OF SHARES, LOANS

A player may conduct any action even if he does not have enough cash for the action. In this case he must sell enough shares in an emergency share sale at their current value to obtain enough cash. The same applies whenever a player has to pay more cash than he currently has in his possession.

Any remainder is paid out to the player. It is not possible to sell more shares in an emergency share sale than required to pay for the chosen or required action.

Emergency share sales have a negative effect on the share value. For each share sold in this manner the share value is reduced by a number that corresponds to the first digit of the current space on which the share value indicator is currently located. As a first step the player determines by how much the share value is reduced for each share sold and only in a second step the indicator is moved back for all the sold shares at the same time.

Example: *Marion's share value indicator is located on space 28. She sells two shares in an emergency share sale to raise £38. The share value is reduced by two spaces per share. As a consequence Marion's share value indicator has to be moved back four spaces onto space 24. As she had to pay £30, she receives £8 in cash.*

If a player does not own any shares but is still in need of money, he has to take out a loan. Loans are only available as £10 loans. To take out a loan a player places shares from the bank onto the share value track. The number of shares indicates how many £10 loans he has taken out. In addition the player has to readjust his share value by one for each loan taken out.

Paying loans back is only allowed as part of purchasing shares during the *stock exchange* action. The player must pay £13 to the bank for each £10 loan taken out before he can purchase any shares!

Loans should be avoided!

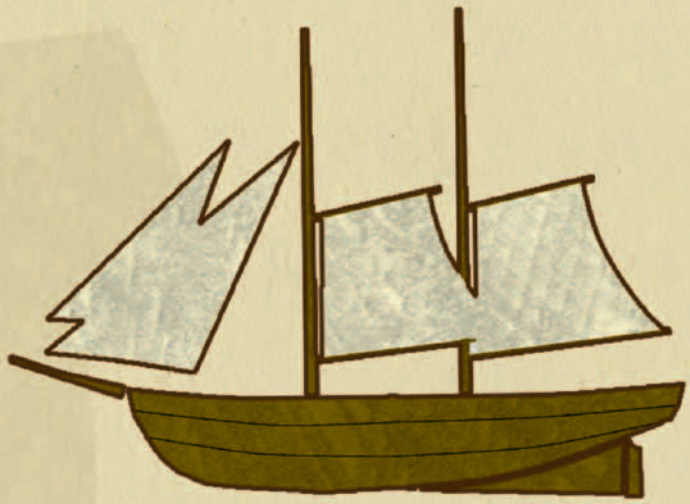
8.0 END OF THE GAME AND WINNER

Arkwright ends when the players have concluded the final game turn including the event *end of game*.

All players who have still taken out loans at the end of the game automatically lose and are not considered during the final scoring.

Each player determines the value of his company. He multiplies the shares in his portfolio by their current share value.

The player with the highest number is the winner. In case of a tie, the player who owns more cash is the winner. If there is still a tie, there are several winners.



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