

A game by STEFFAN RISTHAUS for 2-4 players
12 years and up

Arkwright

water frame





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1.0 INTRODUCTION

This is the more complex version of **Arkwright**, named **water frame**.

















The player who has the most valuable portfolio of his shares wins **water frame**.











The value of the shares rises by successfully selling them. However, if a player's portfolio of shares has a very high value, it will be difficult to rebuy the shares from the bank in time.

This is the complete **water frame** rules book. Any changes to **spinning jenny** are in **brown**.

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 **water frame** the players prepare their company in the 1760-turn and play for five turns (= decades) afterwards.

Each game turn consists of four cycles and one event phase. In each cycle each player conducts one player turn. At the end of each cycle all factories of the active goods produce.

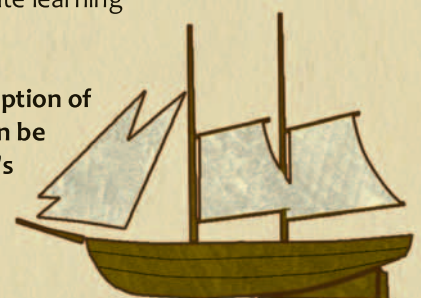
Produced goods are sold or stored in England. Moreover, goods may be sold in the “colonies”. This is very lucrative, however, because of the risk the players may experience a decreasing share value.

The trade with the colonies is only possible by contracts of the East India Company which are available at the stock exchange.

In this game version development tiles are used in addition. They enhance the options available to the players.

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's book.





4.0 SETTING UP THE GAME

Water frame consists of one preparation game turn (1760) and five additional game turns (= decades; 1770 - 1810).



The following components are **not** needed in **water frame** and are returned to the game box:

 advanced action marker
 stock exchange.

4.1 PREPARATION ROUND 1760

Water frame begins in 1760 with a preparation round which is different from the following five 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.

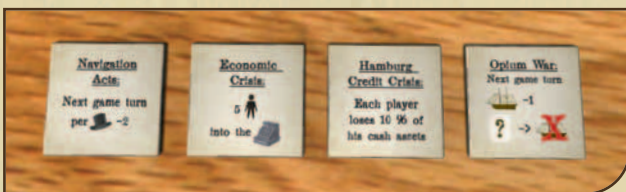


I. Game board and common supply

One player puts the game board on the table and places the timetable indicator on the 1760 space of the game board's timetable.

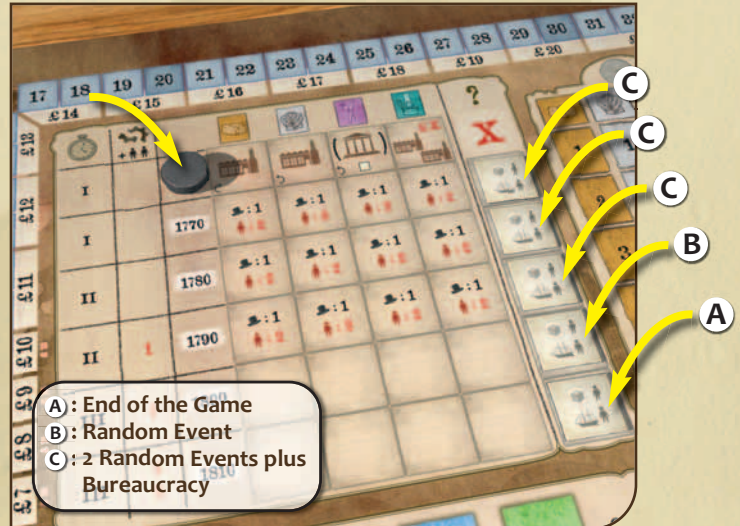
He places the event marker *end of game* (flipside up) on the event space of 1810. Afterwards he prepares the other event markers.

2-player-game: The player removes the following event markers permanently and places them back into the game box: *Navigation Acts*, *Economic Crisis*, *Hamburg Credit Crisis*, *Opium War*.



The player sets the event marker *Bureaucracy* aside and shuffles the other event markers. Afterwards he places, flipside up, one marker on the event space of 1800. Two

additional event markers are shuffled together with *Bureaucracy*; then these three markers are placed, flipside up, on the event spaces 1770 to 1790. The other markers are removed permanently and placed back into the game box.



One player prepares the economy markers.

2-player-game: The player removes the economy markers with the listing “3 workers back into the job market” permanently and puts them back into the game box.

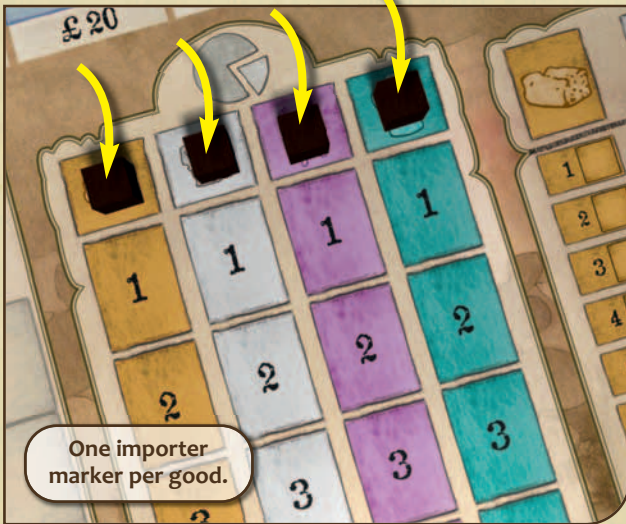


The player shuffles the economy markers, divided by “type”, and places one marker each, flipside up, on the appropriate spaces of the 1770 – to 1810 decades of the timetable. The other markers are removed permanently and put back into the game box.




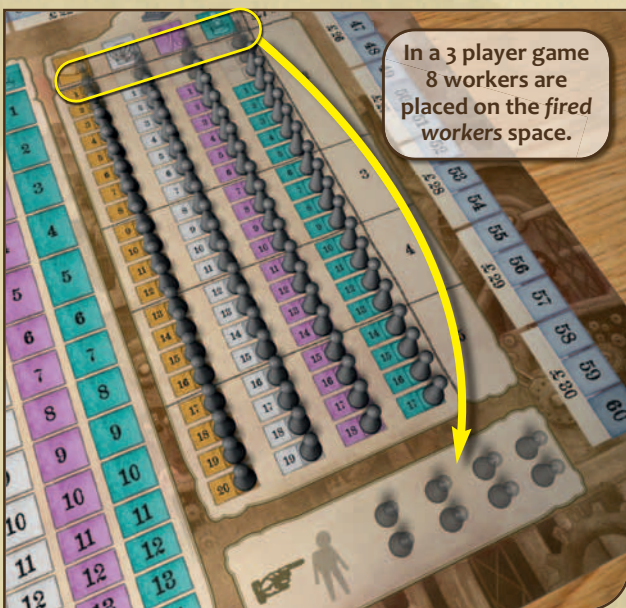


One player places one of the four neutral importer markers on each of the uppermost 'zero' spaces of the *market share table* (on the symbols of each kind of goods).



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 <i>fired workers</i>	return to the box (removed from the game)
four players	4	---
three players	8	---
two players	4	8



One player 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!

Predetermined Set Up

Regardless of the number of players the economy markers with the listing “3 workers back into the job market” are removed permanently and put back into the game box.

One player places the following event markers, flipside up, on the timetable:

- 1770: Lobby*
- 1780: War on the Continent*
- 1790: Bureaucracy
- 1800: World Exhibition*
- 1810: End of the Game

* Starting with the second game the three event markers with an asterisk may be shuffled and placed randomly.

II. Providing the Players with Playing Pieces

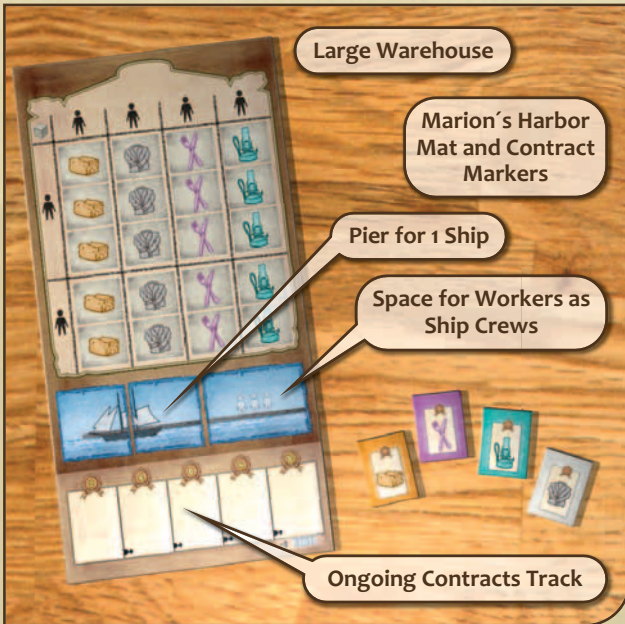
Each player takes the playing pieces in his color, one factory mat and one set of factories (per kind of goods a factory of level I till IV) that are placed, sorted into levels and kind of goods, next to the factory mat.



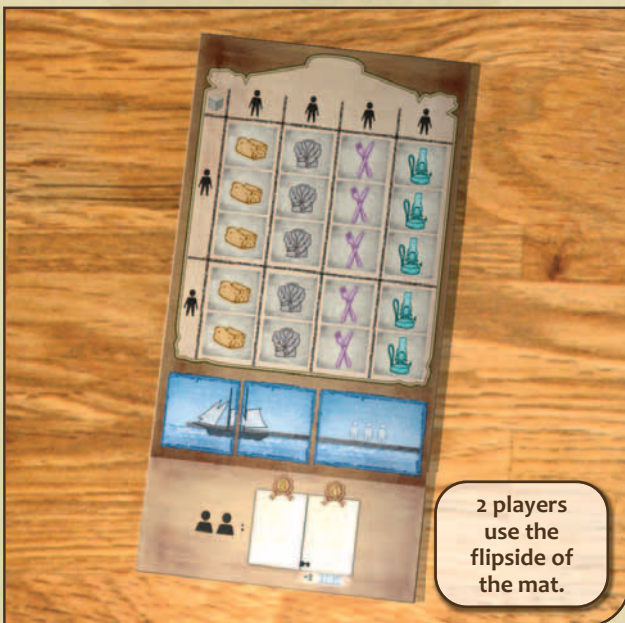
Arkwright

A player places the four price indicators next to the price scales. He puts his action markers aside and stacks the *distribution* and *quality* markers (+1/+2/+3/+4 side up) in his own pool.

In addition, each player receives a harbor mat and four contract markers (one per good) that are placed next to the track *Ongoing Contracts*.

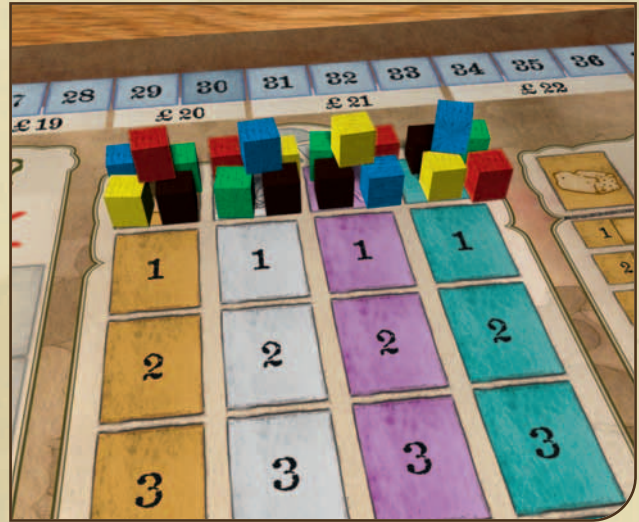


2-player game: The two players may only use the 2 and 4 spaces of the *contract track* and turn the harbor mats to their flipside.



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.

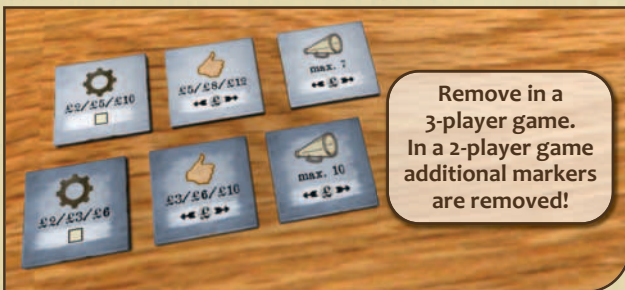


III. Preparing the Special Markers Mat

One player sets up the *special markers mat*, *water frame* side up, and places the second time indicator on the space marked I (1760/1770).

He puts the ships according to their capacity on the appropriate spaces. The four ships with capacity 2 are stacked on the two spaces.

3-player game: One player removes one full set of light and dark grey action markers (one marker for *machines*, *quality*, *distribution*, *production*) from the game and returns them to the box.




2-player game: Only the ships with capacity 2 are used; the other ships are permanently removed from the game and returned to the box.

One player removes two full sets of light and dark grey action markers from the game and returns them to the box.

One player shuffles the light grey action markers *machines*, *quality*, *distribution*, and *production* and places one single marker each, according to the number of players, flipside up, on the light grey spaces of the mat for special markers (rows I and II). Afterwards he does the same thing with the dark grey action markers and places them, flipside up, on the dark grey spaces of rows III and IV.

Surplus action markers are removed from the game and returned to the box.

A player picks *charisma* and one *inventor* tile from among the development tiles and places them, flipside up, next to the special markers mat. He shuffles all other development tiles and places them, according to the number of players, next to the special markers mat (flipside up).

	Number of additional development tiles
4 players	26 tiles
3 players	19 tiles
2 players	12 tiles

Note: For your first games we recommend that the four *patron* tiles are used and therefore only 22, 15, or 8 tiles are drawn randomly.

For a better organization, identical tiles should be stacked. If the player draws as many identical tiles as there are participating players, he removes the last drawn tile from the game and draws a replacement. All surplus tiles are removed from the game as well and returned to the box.

Predetermined Set Up

One player places the following light and dark grey action markers on the special markers mat.

Advanced action markers

Level	2 players	3 players	4 players
I	 		
II	 		 
III	 		 
IV	 		

Development tiles

One player puts out the following development tiles.

2 players			3 players (in addition)			4 players (in addition)	
Charisma - Bonus point even when tied - Determine start player	Administrator - Despite "Bureaucracy" space £2 - no additional fee when space is used more than once	Extra Shifts - During production +1 in addition	Workshop - At administrative costs free +£3 - Service = £1	Inventor - Next level allowed 4 times at additional costs £5/10/15/20	Developer - When → -£5 per	Workshop - At administrative costs free +£3 - Service = £1	Administrator - Despite "Bureaucracy" space £2 - no additional fee when space is used more than once
Inventor - Next level allowed 4 times at additional costs £5/10/15/20	Developer - When → -£5 per	Broker - () at Event - instead of 1-2 shares for half price	Agent in the Colonies +1/-1	Accountant - Pay up to £2 more/less administration costs	Small Warehouse - 5 stored free of charge	Agent in the Colonies +1/-1	Patent - At - Administration costs free +£2 - +2 levels
School - At relocated - During production the last line may be shut down	Foreman - At 1 wage -£2 for a max of 4	Patron 1 sold in addition	Patron 1 sold in addition	Engineering works - Each bought by other player +£1	Patron 1 sold in addition	Engineer - At levels 5 & 6 allowed - administration costs freely determined	Patron 1 sold in addition

Example: Predetermined set up for 3 players

* Waterframe / water frame *

	I		II		III		IV	
	1760	1770	1780	1790	1800	1810		
Ships	2	2	4	4	6	6	8	10
Costs	£2/£5/£10	£2/£5/£10	£2/£5/£10	£2/£5/£10	£2/£3/£6	£2/£3/£6	£3/£6/£10	£3/£6/£10
Max	7	7	7	7	10	10	10	10
Other								
Notes								

Charisma
 - Bonus point even when tied
 - Determine start player

Inventor
 - Next level allowed 4 times at additional costs £5/10/15/20

School
 - At relocated
 - During production the last line may be shut down

Administrator
 - Despite "Bureaucracy" space £2
 - no additional fee when space is used more than once

Developer
 - When → -£5 per

Foreman
 - At 1 wage -£2 for a max of 4

Extra Shifts
 - During production +1 in addition

Broker
 - () at Event
 - instead of 1-2 shares for half price

Patron
 1 sold in addition

Workshop
 - At administrative costs free +£3
 - Service = £1

Agent in the Colonies
 +1/-1

Patron
 1 sold in addition

Accountant
 - Pay up to £2 more/less administration costs

Engineering works
 - Each bought by other player +£1

Small Warehouse
 - 5 stored free of charge

Patron
 1 sold in addition



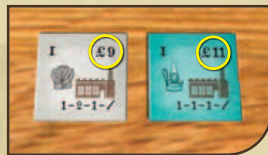
IV. Choosing and Building the First 2 Factories

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 1 and £11 to build a lamp factory of level 1.



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 has to be always determined in such a way that the appeal is at least "0". However, the appeal should be always higher because it also limits the amount of sold goods.

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.



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.



In reverse clockwise order, beginning with the neighbor to the right of the start player, each player now has to decide how many of his shares he wants to sell. In this way his cash start-up capital is formed.

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.

Start Set Up for 4 players

Set Up – factories

The depiction below is in player order, starting with player **blue**.

Factories

Player Color	blue	red	green	yellow
Factories (workers/price/appeal)	Clothes (4/£6/3) Cutlery (5/£6/4)	Food (4/£7/1) Cutlery (5/£7/3)	Clothes (4/£5/4) Lamps (6/£8/3)	Food (4/£5/3) Lamps (6/£9/2)

Start Set Up for 3 players

Factories

Player Color	blue	red	green
Factories (workers/price/appeal)	Food (4/£7/1) Clothes (5/£8/1)	Food (4/£6/2) Cutlery (5/£8/2)	Food (4/£5/3) Lamps (6/£9/2)

Start Set Up for 2 players

Factories

Player Color	blue	red
Factories (workers/price/appeal)	Food (4/£5/3) Cutlery (5/£8/2)	Food (4/£7/1) Clothes (5/£8/1)





Each player has 15 shares. Any number of them may be sold to the bank. A player gets £10 per share according to the current share value. Each player has to sell at least as many shares to pay for his start factories with the received money.
 Sold shares are put to other shares in the bank (the bank already has 15 shares per company – the player did not get any money for them).



After a player has sold shares he may immediately take a *special marker*. He may take a light grey action marker or a ship from row I (1760/1770) of the *special marker* mat or one of the development tiles next to the *special marker* mat.

In *water frame* a player does not get additional start-up money – just the money from the sold shares. To withstand emergency sales in the first game turn, we recommend selling at least 4 shares.

Predetermined set up

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

Start Set Up for 4 players

Advanced action marker/start capital

Player Color	Blue	Red	Green	Yellow
Shares in possession/start capital	9/£60	10/£50	9/£60	10/£50
Special marker				

Start Set Up for 3 players

Advanced action marker/start capital

Player Color	Blue	Red	Green
Shares in possession/start capital	10/£50	9/£60	9/£60
Special marker			

Start Set Up for 2 players

Advanced action marker/start capital

Player Color	Blue	Red
Shares in possession/start capital	8/£70	7/£80
Special marker		



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.

Start Set Up for 4 players

Start Set Up – payment for factories

Player Color	Blue	Red	Green	Yellow
Building costs	£19	£18	£20	£19
Remaining start capital	£41	£32	£40	£31

Start Set Up for 3 players

Player Color	Blue	Red	Green
Building costs	£17	£18	£19
Remaining start capital	£33	£42	£41

Start Set Up for 2 players

Player Color	Blue	Red
Building costs	£18	£17
Remaining start capital	£52	£63

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!

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.

These rules explain the development tiles only in outline. The tiles are described in detail in the *player's book*.

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



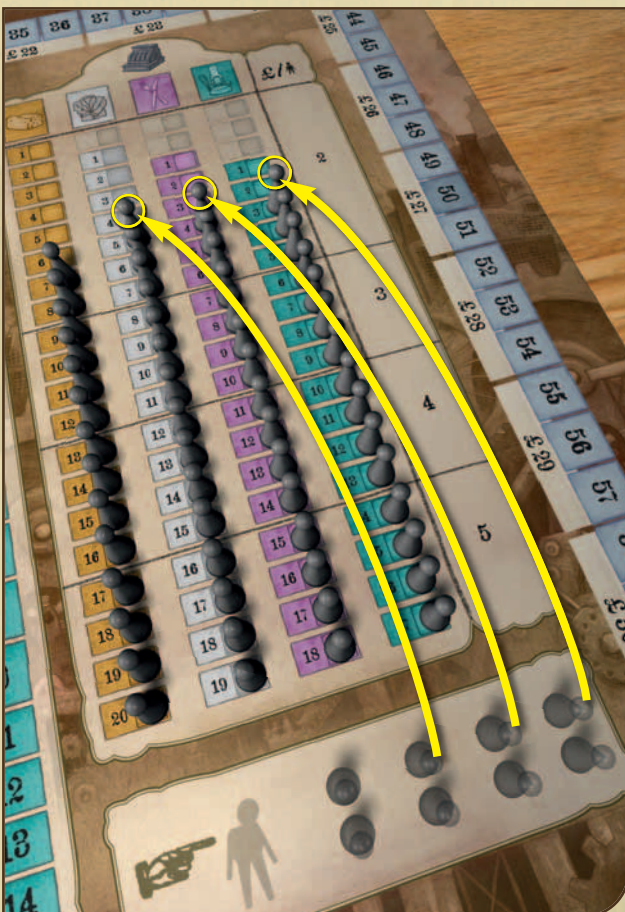
In this phase workers return to the job market and a neutral importer progresses on the market share table.

The start player turns the economy marker that is located on the space of the timetable indicator. He advances the neutral importer indicator

(market share table) in the row of the active goods as many spaces as the economy marker is showing.

In addition, he transfers as many workers from the *fired workers* area to the *job market* as stated on the marker. 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.

Example: Marion advances the importer marker for the active goods 1 space and returns 3 workers to the job market.



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

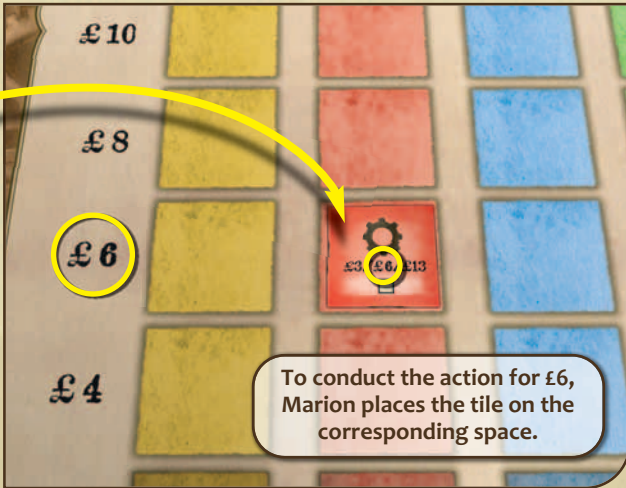
A player needs the right action marker to conduct a certain action. In addition to action markers of his own color he may use grey action markers that he has previously acquired – these are the so-called advanced action markers.

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.

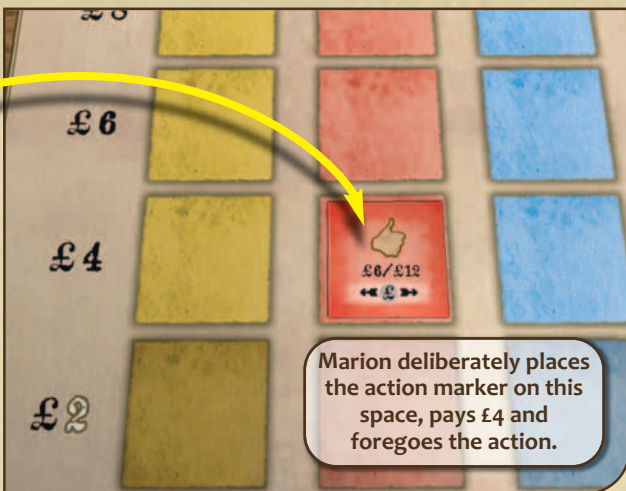
It is not possible to pass! Every player must choose an action and place the corresponding marker on the administration chart. It is however possible to pass on executing the action and/or the additional action (this, however, makes only sense on rare occasions). In any case the player has to pay the 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.



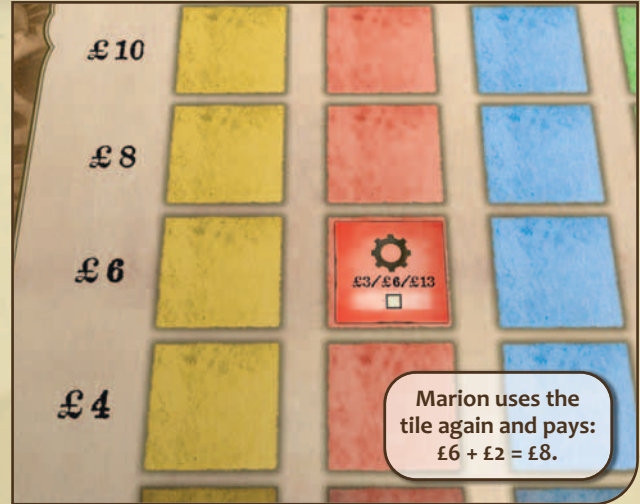
Example: The action marker quality requires administrative costs of at least £6. Marion places it, however, on the £4 space. Thus she pays only £4 but has to pass on the action.



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 marker 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.

The following development tiles and events influence the rules during the action phase: *accountant*, *administrator*; event: *bureaucracy*.

An accountant allows the player to increase or decrease the administrative costs by up to £2. A player saves the additional fee for using the same action marker anew with the *administrator*. If the *bureaucracy* event is active, the players may not use the £2 space on the administration table without an *administrator* anymore.



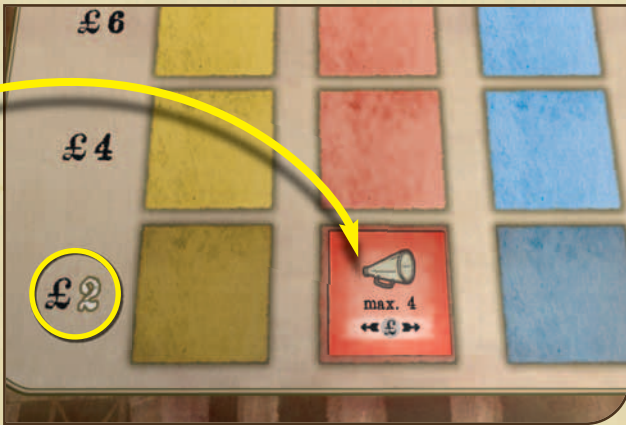
II.2 Detailed Description of the Various Actions

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.



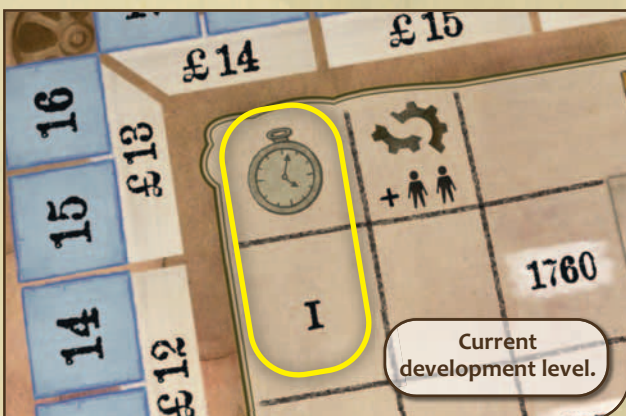
II.2.1 Factory



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.



Current development level.

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.

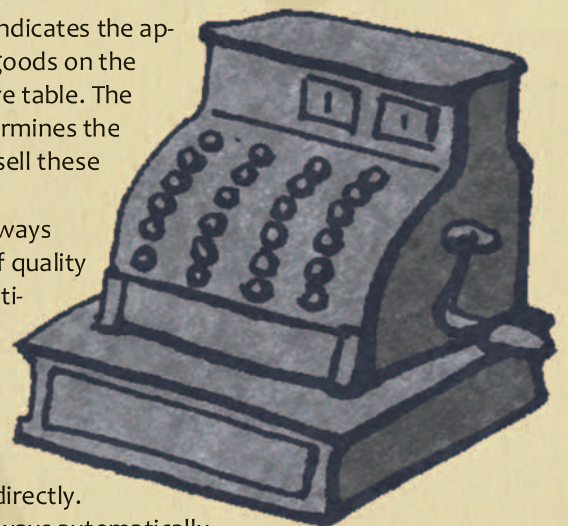
Subsequently he takes as many workers from the job market as are required to completely fill the **first** production row and have it ready to go. Production rows 2-4 remain empty and have to be activated by conducting the action **workers**. **Attention:** Only at the start of the game (during the preparation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

The player may modernize a factory by 2 levels in the same turn if he is paying the full price for both levels.

Example: Marion would like to modernize her food factory from level I to level III. Therefore she pays $£10 + £12 = £22$.

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.

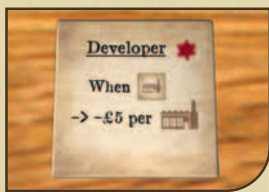
A player may close a factory in which there are additional workers because the factory had become obsolete. These workers are also placed on the fired workers space – just like the other workers.

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.



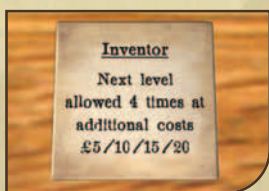
If a player closes a factory, he keeps any goods in a warehouse. He is however not allowed to sell them regularly during the sale phase because there is no regular selling price for these goods and the appeal indicator on the market share table is placed on the 'o' space. He may only sell goods regularly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

The following development tiles influence the *factory* action: *developer*, *inventor*.



If a player uses the *developer*, the price for all his factories that he newly builds and/or modernizes in the same action is reduced by £5 each. Therefore, if he builds or modernizes all four factories he would save a total of £20. After using the tile, the player has to return the *developer* to the common supply. He may not use the *developer* in the same turn in the same factory twice.

Example: When Marion modernizes her food factory, as described above, by two levels, she only has to pay a total of £17 with the *developer* (regular costs of £10+£12 = £22, minus £5 once).



If a player uses the *inventor*, he may modernize a factory to a level that is one level higher than the current level on the timetable. He always has to pay the full costs for the next higher level; i.e., he may not use the *developer* to modernize a factory to a level beyond the current technology. The *inventor* only allows modernizing a factory, not building a new one. For each modernization of a single factory beyond the current level the player has to use the *inventor* anew.

Example: In 1780 (factory level II) Marion builds a new lamps factory of level II. Using the *developer* she only has to pay £9 instead of £14 for this factory. In the same action she modernizes the factory with an *inventor* to level III. For this Marion has to pay the full price of £17. She may not use the *developer* for this modernization for two reasons: first, he was already active in this factory, second, he may not be used for a modernization to this level.

After using the *inventor* the player either has to return him or immediately pay for his next usage.

If a player owns the *school* he may not use it during the *factory* action to transfer fired workers to a different factory. When a factory is closed or fires additional workers (modernization because of obsolescence), he has to place them to the *fired workers* area.

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.

Workers needed as ship crews are automatically taken by the additional action *special marker* when a ship is chosen.

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).

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.

In the last game turn (1810) the player may put workers in factories whose goods already have been active. This may make sense when the player owns an advanced action marker *production* and would like to use it before the game ends. If he still does not conduct a *production* with that kind of goods, he will lose shares at the end of the game and has to move back his share value indicator.

Without this penalty the player could only create an artificial demand without paying wages for the hired workers.

After the regular hiring of workers, the player puts a worker from the first production row onto the factory marker as marking. He only returns this worker to his regular spot in the production row when he has started the production action. Of course, the player may use the first production row regularly.

With this action, the player may also transfer workers into the warehouse to open up new warehouse space. To do so, he takes workers from the job market (as described above) and places them next to a row or column at the edges of the warehouse. Their hiring does not cost anything for now; the player pays the warehouse workers only in the event phase.

Example: Marion places a worker above the second column of her warehouse and opens up warehouse space for up to five clothes.



Moreover, the player may freely move workers in his warehouse between rows and columns to open up new parts of the warehouse. As a result he may have to put stored goods back to the common supply.

Note: *The player may never transfer workers from or into factories or from ships.*

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.

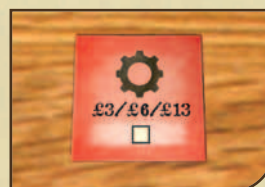
Additional workers who had to be hired because of the factory's obsolescence may not be fired as part of this action.

In addition, the player may **not** fire workers from the warehouse or from ships! They may only leave the harbor mat at the end of a turn (and are only paid at this time, see 3.1).

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.

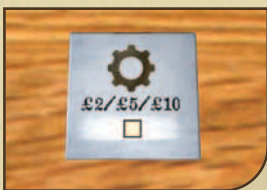
The costs of £13 indicated on the colored markers of each player cannot be achieved in the spinning jenny version of the game.



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.



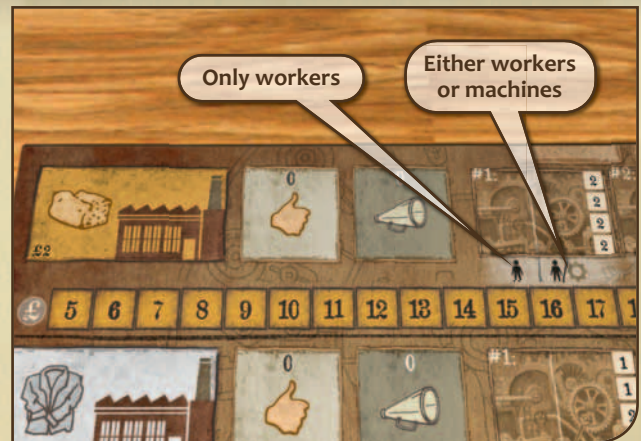
Using the advanced action marker of the first level (light grey) the player may purchase up to 3 machines. To do so he has to pay administrative costs of £10. The marker of the second level (dark grey) offers the opportunity to purchase three machines if a player pays administrative costs of £6.



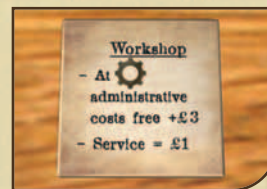
The player takes the purchased machines from the common supply. He must place them in his factories immediately and must use them to replace workers.



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.

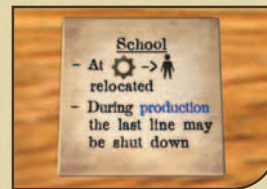


The following development tiles influence the machinery action: workshop, school, engineering works.

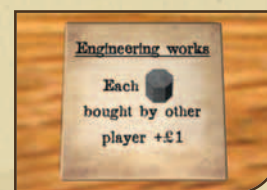


If a player owns the workshop, he may increase paid administrative costs by £3 without paying anything in addition.

Example: with the aid of the workshop Marion may buy 3 machines with her own action marker when she is paying administrative costs of £10.



If a player owns the school, he may place fired workers afterwards on any free space in one of his factories; these workers may not be replaced in the same action by machines.



Owners of engineering works receive £1 for each purchased machine during each machinery action from the bank. This does not apply to the player who buys the machines.

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.



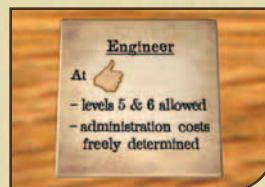
Levels five and six are on the flipside of the quality marker. They can not be obtained *spinning jenny* version of the game.

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.



The following development tile influences the quality action: *engineer*.



If a player owns the *engineer*, he may increase quality in his factories to level 5 or even 6 (the marker is flipped). The quality level stays even when the player returns the *engineer*. Moreover, a player with the *engineer* may freely select, independent of the selected space on the administration table, the amount of administrative costs he is going to pay.

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



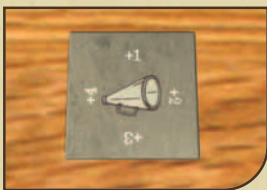
Conducting this action a player increases the sales opportunities for his goods temporarily. A player may only apply the actually paid administrative costs to this action.



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.

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.

The following development token influences the *distribution* action: *patent*.



If a player owns the *patent*, he may increase the distribution measures in two ways. First, he determines the efficiency of his action on the basis of the administrative costs and the maximum value of the action.

Example: Marion's action marker allows distribution measures of a maximum value of 7 and is in the £8 space. Therefore Marion may conduct distribution measures of value 7.

Afterwards the player may increase this number with the aid of the patent by £2 without having to pay anything extra. The limit of the action marker does not count for this increase. After this usage the player keeps the *patent*.

Example: Marion may increase the "useable" value from 7 to 9 using the patent.

Instead, if the player returns the *patent* to the common supply, he may, independent of their level, increase distribution markers in his factories up to two times by one level (or one marker by two levels). He does not have to use these increases in the same factories in which he increased distribution with his action marker.

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.



11.2.6 Stock Exchange



With this action the player may buy and sell shares, repay loans and sell goods from his warehouse. In addition, he may buy as many contracts with the East India Company as desired and/or increase these.

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.



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**

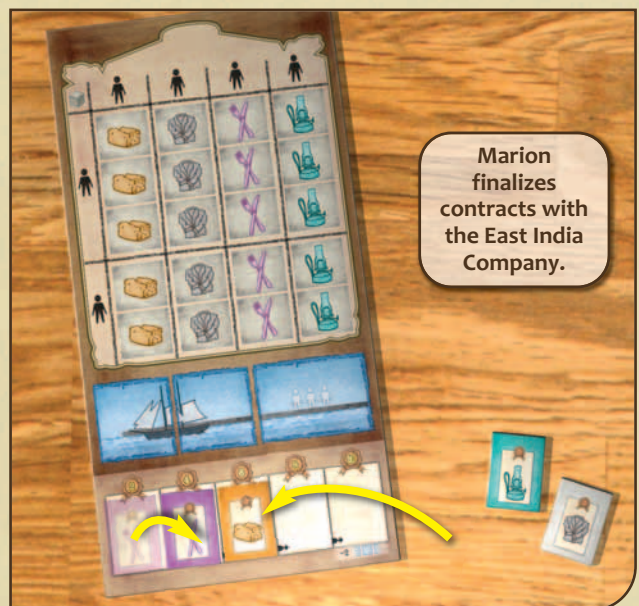
Selling from the warehouse is part of the stock exchange action. It is only a stopgap measure in case of over-production.

Acquiring contracts with the East India Company and/or increasing them: To acquire a contract a player places the contract marker of a particular kind of goods on any space of the *ongoing contracts* track. The player does not have to pay anything to get a contract but will suffer a drawback when he does not fulfill it.

2-player game: In 2-player games only the spaces #2 and #4 on the *ongoing contracts* track are available. The players are using the flipside of the harbor mat.

A player may place as many contract markers as desired on each space of the track; however, per kind of goods he has only one contract marker. In addition, he may move any number of contracts that he acquired earlier via the *stock exchange* action to a *higher* numbered space on the *ongoing contracts* track. A player may not increase a contract beyond the 10 space. Moreover, it is not possible to decrease the value of a contract.

Example: Marion acquires a new contract with the East India Company and places the food contract marker on the 6 space. In addition, she increases the already running contract for cutlery from 2 to 4.





When a player acquires a contract, he commits himself to deliver these goods later by ship to the East India Company (= the common supply). In this way nice profits may be generated. The position on the ongoing contract track determines the exact number of the goods to be delivered. A player may not conduct partial deliveries und therefore needs enough ships for transport. Therefore a player should not place a contract too high on the track. When a player does not fulfill a contract, the share value of his company will fall!

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.2.7 Ships



With this action a player may sell stored goods to the East India Company. The action is risky, however, successful players will earn large profits.

The *ship* action is not available right at the start of the game. First a player has to get a ship via the additional action *take special marker*. With the aid of ships the player will later sell goods from his warehouse to the East India Company to fulfill a contract.

For this action a player needs:

1. a ship,
2. a warehouse,
3. the goods, and
4. a matching contract.

The size of the ship determines how many goods tokens a player may sell at most to the East India Company. He may sell less goods as the ship may transport at maximum (some capacity is unused). A player may not use other ships in this action in addition – only the ship selected as action marker for this action may be used.

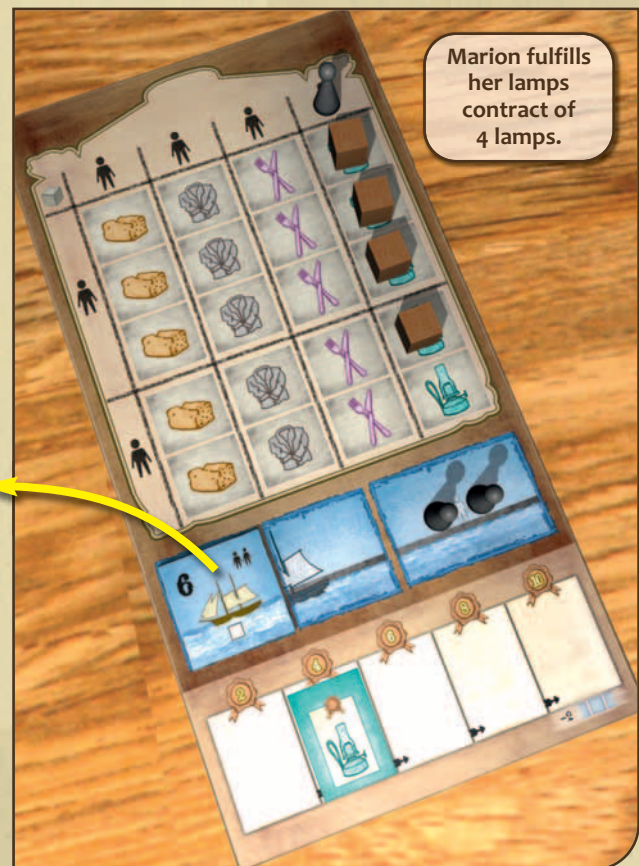
To conduct the *ship* action, the player has to pay administrative costs at least as high as the capacity of the ship. Moreover, he has to move his share value indicator **1 space backwards** (= the risky ship transports unsettle the shareholders).



Example: Marion may place the ship with a capacity of 2 on any space of the administration table; the ship with a capacity of 6, however, only on the 6, 8, or 10 spaces. In addition, she has to move her share value indicator 1 space backwards.

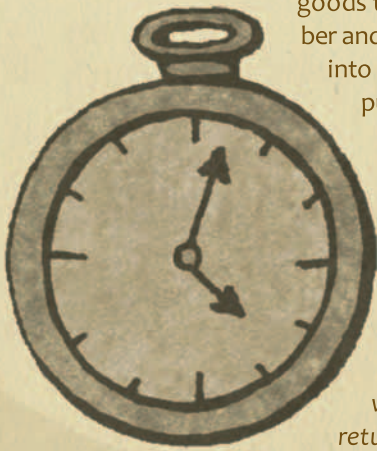
For this action the actually sold costs are essential – the player may influence these with the *accountant* development tile. With an accountant he could place a ship with a capacity of 6 in the 4 space, too, if he paid £6. He may not place the ship in the 6 space and only pay £4 administrative costs by using the *accountant*, even if he only needs a capacity of 4.

Example: The administrative costs for Marion's ship are at least £6. She needs a lamps contract for 4 lamps and a ship capacity of 4. She fulfills the contract but has an unused capacity of 2.



Selling is always only possible with contracts. A player may not deliver goods to the East India Company without a matching contract. He always has to fulfill a contract in a single delivery and, of course, with the goods of the correct kind.

Example: Marion may not only use 4 food for her contract on space 6. Moreover, she may not only use a ship with a capacity of 4.



To fulfill a contract, the player puts goods tokens of the exact number and kind from his warehouse into the common supply and puts the contract marker back next to the ongoing contracts track.

Example: Marion fulfills her contract of 4 lamps. She has enough ship capacity and enough lamps in her warehouse. These are returned to the common supply; the contract marker is

placed next to the ongoing contracts track.

For fulfilling a contract a player receives money amounting to the building costs (= basic quality) of his factory per goods from the bank. The value of any distribution or quality markers do not influence this factory. The profit that the player would have achieved for these goods in England according to his factory mat does not matter, too.

Example: Marion owns a lamps factory of level II and receives £14 per delivered lamp. With four lamps she gets £56.

If he has sufficient ship capacity a player may fulfill several contracts with the same ship action.

Example: Marion has contracts for 4 lamps and for 2 clothes. With a ship of capacity 6 she may fulfill both contracts at the same time.

Note: A player may fulfill contracts in the production phase even without a warehouse by shipping goods from the ongoing production directly. In the production phase he may use several ships at the same time.

The following development tiles influence the ship action: *agent in the colonies*, *office*.

If a player has an *agent in the colonies* he may deliver one additional or one less goods as the contract is stating. The available ship capacity has to be large enough to transport an additional goods.

If a player has the *office*, he receives additional profits when fulfilling a contract. The player receives, independent of the number of contracts and the number of delivered goods, always £5 for each ship transport.

Example: Marion owns the office. She receives £56+£5 = £61 for fulfilling her lamps contract.

Additional action: The *ship* action marker allows the player to take a special marker as additional action. This additional action is conducted after the main action.



II.2.8 Production



With this action a player may manufacture goods in any factory outside of the production phase. He stores these goods in his

warehouse.

This action is not available right at the start of the game. First a player has to get a corresponding grey marker via the additional action *take special marker*.

The player first pays the administrative costs. Afterwards he decides in which factory he will produce goods and how many production rows he will use. A player always has to produce in ascending order; e.g., he may not produce goods only in the second production row but always has to start in the first one.

A player has to put produced goods in his warehouse; the corresponding warehouse spaces have to be occupied by a worker! If a player produces more goods as he can store, surplus goods are forfeited. An immediate sale or a shipment is not possible.

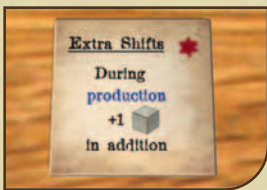
If a player decides to produce in the last game turn in a factory that was already active in an earlier cycle and where a worker has been placed on the factory marker, he puts this worker back to his regular spot in the first production row before production starts.

A light grey action marker only allows to produce in the first two production rows; a dark grey marker allows production in all four production rows. The player has to pay wages and the operational costs of his machines plus administrative costs directly after the production just like in a normal production. The number of produced goods corresponds to the capacity of the selected production rows.

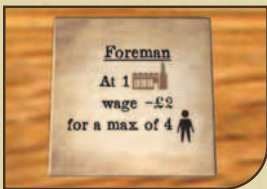


Example: Marion produces food in the first production row of her food factory of level III. She has to pay wages for one worker and £1 operational costs for machines. The two produced goods are moved (as goods token) from the common supply to the warehouse.

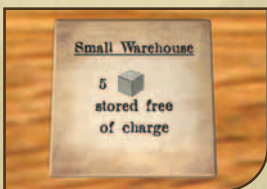
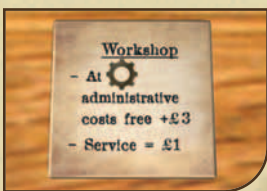
The following development tiles influence the production action: *extra shifts, foreman, workshop, small warehouse*.



If the player returns the *extra shifts* voluntary, he receives one additional goods of the corresponding, just produced kind.



If the player has a *foreman* in his factory, he pays £2 less wages for up to 4 workers in that factory. If the player has allocated a *workshop* to the factory, he pays a flat £1 as operational costs for machines, no matter of the number of machines.



If the player has the *small warehouse*, he may store 5 goods tokens in it without having to operate the large warehouse with workers. Stored goods are placed on the price scale of the corresponding goods.

The player may not use spaces with goods as price spaces. In the rare case that the player already has placed the price indicator on one of his last spaces, he may only store as many goods of this kind as there are unoccupied spaces to the right of the price indicator.

The player may store a maximum of five goods of any kind. If he has to place additional goods, he always may return goods from the warehouse to the common supply (without getting any compensation!) to have space for other goods. He may also transfer goods to the large warehouse if there is room.

Additional action: The *production* action marker allows the player to conduct a *price adjustment* as additional action. This additional action is conducted after the main 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 "take special 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!

With the additional action after the *production* action the player may only adjust the price in the factory in which he actually produced.

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 Take Special Marker

Subsequent to the *worker*, *machines*, *stock exchange* and *ship* actions the player may take *one special marker*. This additional action does not cost anything. There are three different kinds of special markers: development tiles, advanced action markers, and ships.

The following development tile influences the additional action *take special marker: broker*.



A player who may conduct the additional action *take special marker* but does not do so may use the *broker*. He must have the *broker* already in possession and now has to

return him to the common supply. In this case he may buy 1 or 2 shares from the bank at *half price* (if necessary, rounded up).



II.3.2.1 Special Marker Development Tile

A player may take any development tile available in the common supply. The development tiles change the effects of certain actions and other processes of the game. The tiles list their effects in brief. *The players will find the details of all tiles in the player's book.*

Instead of taking a new tile a player may change the assignment of a tile already in possession; e.g., transferring the *foreman* from one factory to a different one.

Note: A player may never have two *identical* development tiles. If he has the *inventor*, he may not take a second inventor.

Patrons for different kind of goods are different development tiles.

The players place taken development tiles at the designated spots at the top edge of their factory mats. A player may not have more than four development

tiles. When a player takes a fifth tile, he immediately has to return another tile to the common supply. It is available again for all players. The effects of a returned tile are immediately suspended. **Example:** A player would have to return goods tokens to the common supply when he returns his *small warehouse* and cannot put them into his large warehouse.



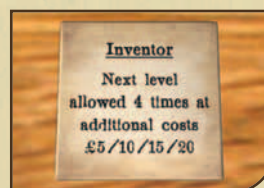
II.3.2.2 Special Marker Advanced Action Markers

The players may only select the markers that are in the row of the current or an earlier development level. The timetable indicator shows the permitted levels.

A player applies an advanced action marker just like his own colored action markers. However, these markers are more effective. The *production* action marker even allows the players a new action that is not available for the colored markers. A player may never have two identical action markers of the same kind of grey. However, he may have markers with the same name and different kind of greys (light and dark).

The following development tile influences this additional action: *inventor*.

A player owning the *inventor* may take an advanced action



marker of the next higher level. In this case he has to return the *inventor* or immediately pay for his next usage.



II.3.2.3 Special Marker Ships

When a player takes a ship he places it at one of his piers of his *harbor mat* and may use it as additional action marker. A player may use his ships in the *production* phase, too.

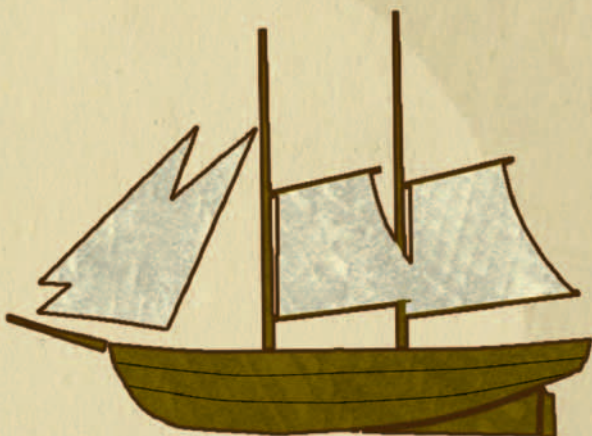
He may only select ships of the current development level or earlier ones. The timetable indicator shows the permitted levels.

Each player has two piers for ships at his *harbor mat* and therefore may own a maximum of two ships. A ship that has been temporarily placed on the *administration table* for the *ship* action occupies one of the two piers. When a player takes a third ship he has to return one of his other ships to the *special marker mat* and put the new ship in its place. A player may only replace a ship with a ship of higher capacity.

A player may not replace a ship with another one when he still has an empty pier. When a player replaces a ship on the *administration table* and uses the ship again in the same turn, he has to keep in mind that the paid administrative costs are at least as high as the new capacity. If the player cannot pay the necessary administrative costs, if applicable using the *accountant*, he may not use the new ship as an action in this turn.

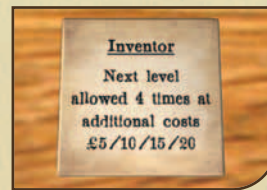
When there are one or more worker symbols on the selected ship the player immediately has to place that many workers from the job market to the *harbor mat* as ship crews. This is done automatically – the player does not have to conduct a *worker* action. When a player replaces a ship he only takes as many additional workers as needed on his own ships.

Example: Marion has a ship of capacity 2 and another ship of capacity 4. Therefore there is 1 worker as ship crew on her harbor mat. She takes a third ship of capacity 6 and returns the 2 capacity ship. Now there are 3 workers (1+2) needed. She takes 2 more workers from the job market and places them to the ship crews.



A player only has to pay for these workers (ship crews) at the end of a game turn (= decade). Afterwards he may return them together with the ship. However, he may not fire or transfer these workers with the *worker* action.

The following development tile influences this additional action: *inventor*.



If a player has the *inventor* he may take a ship of the next development level, too. In this case he has to return the *inventor* or immediately pay for his next usage.



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!

In *water frame* the players may not store surplus goods in this phase automatically. Storing goods is only possible when the player has the development tile *small warehouse* or has workers in his large warehouse on the *harbor mat*.



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.

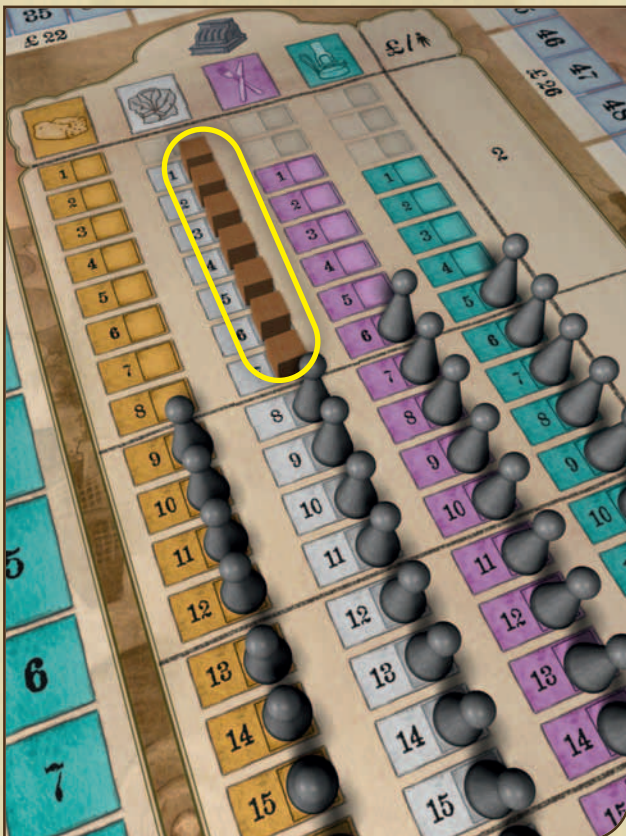
Each active production row produces the amount of goods corresponding to the level of the factory. To the right of each production row the amount of produced goods is indicated for each row.

Example: The first two production rows of Marion's clothes factory of level 1 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:

- 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).
- 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 give sales from the running production a miss if the demand in England is not supplied. The players should keep this in mind when selecting the spaces for their contracts.
- 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.
- 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.



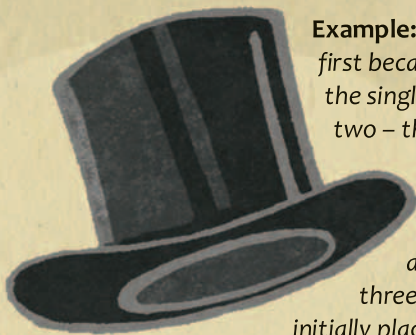
The importer is also taken into account when selling goods. Whenever it is his turn, the first player removes a goods token from the job market and places it separately aside. If there are players called out who have already sold the maximum amount of goods (because of the appeal of their goods) or have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

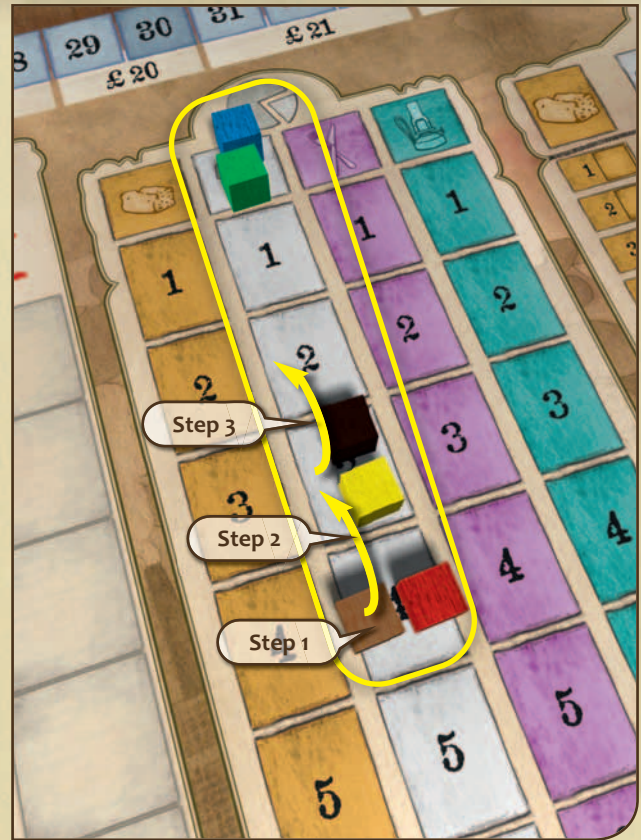
If – when the first player calls out players – there are fewer goods tokens in the job market than there are players who want to sell goods, the order will be determined as follows:

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.



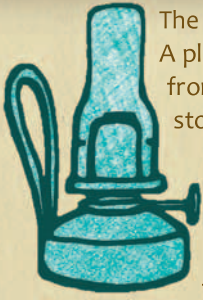
After the end of each sale each player checks if his factory produced more goods tokens than he got good tokens from the job market. If the production capacity has been higher than the number of good tokens on his factory mat to be sold, he may take additional tokens according to the difference from the common supply and put them in his warehouse.

Example: Harold has sold 2 food to the job market (taken from the track), however, he produces 3 food. He takes a goods token from the common supply and put it in his warehouse.

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.

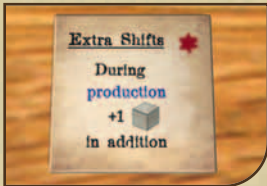
For each goods token on the factory mat sold to the job market and to the development tiles *patron* a player receives the price for this kind of goods according to his price scale from the bank. The player keeps the sold goods tokens on the factory for now.

Example: After all sales have been conducted, Marion receives £21 (£7 each for 3 goods).



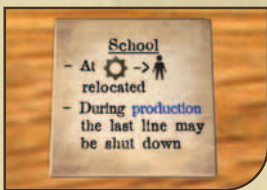
The complete sales procedure is automated. A player may not voluntarily give sales from the running production a miss to store the goods or ship them. However, a player does not have to take out goods from the large or small warehouse to sell further goods after he has just produced goods because of the high demand. A sale from the warehouse is done voluntarily! A player who has stopped his sales in a sales phase may not sell later again in the same phase.

The following development tiles influence the sale: *extra shifts, school, patron, small warehouse.*



If a player who already has sold all goods from the production of his factory during a sale is called, he may return his *extra shifts* to the common supply to produce and

to sell an additional goods. In this case he takes another goods token from the *job market*. The player may only do this during the first call after the sale of all goods from the factory production. If he does not want to, he may only sell goods from his warehouse. Even if the player produces further good tokens and puts them in his warehouse, he may return the *extra shifts* to take another goods token.



A player owning a *school* may close his last occupied production row. As long as he has not sold any goods produced in this production row he may decide that the goods

in this row will not be produced and no wages and operational costs for machines will be paid.

Example: Harold has a cutlery factory of level II and workers in the first three production rows. He would produce 5 goods. He notices that he will only sell 3 goods during the sale. Therefore he states that he will close the third row for this sale. He only produces 3 goods and has to pay only the 5 workers in the first two rows.

If a player has the *patron* for the active kind of goods, he may sell another goods to the *patron* directly after the regular sale to the *job market*. The price is the one on his price scale. The player sells the *patron* either a goods from his current (surplus) production or a goods from his warehouse. Selling to a *patron* is voluntarily. The player does not suffer a disadvantage if he does not sell to the *patron*.



If a player has the *small warehouse*, he may store 5 goods tokens without having to run the large warehouse with workers. Stored goods are placed on the price scale

of the appropriate kind of goods.

If a player does not have a warehouse, no ship and no *patron*, he does not have to take goods tokens out of the supply when he is producing additional goods – he would have to return them immediately anyway.



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. A goods token sold by the *patron* counts as a goods sold regularly.

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.

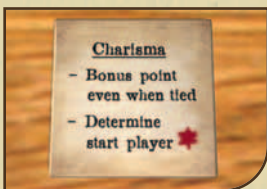


Subsequently all players return their goods tokens and those of the importer to the common supply.

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.

The following development tile influences the share value increase: *charisma*.



If a player has the development tile *charisma* and is participating in a tie when a bonus increase (step) is awarded, he will get the bonus increase.



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

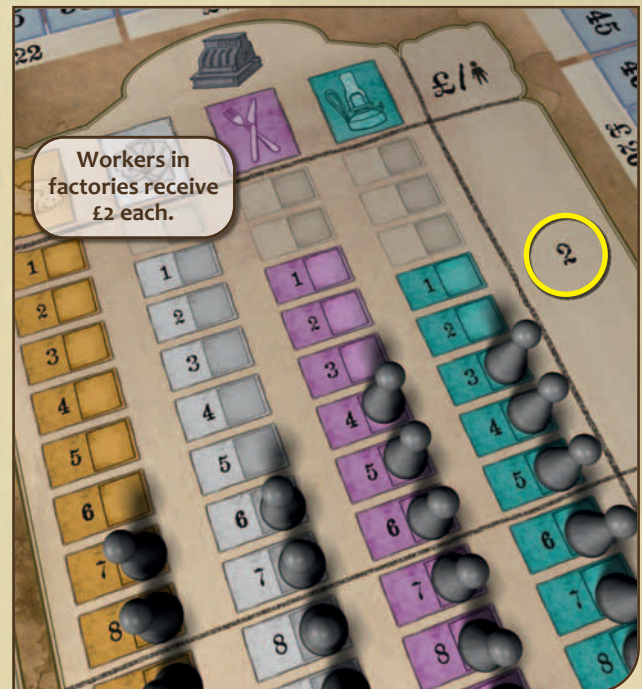
Regardless of the economic success, the players must pay for markers and machines in factories of the active kind of goods.

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.

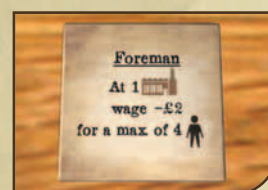
Example: Marion has three workers and one machine in her clothes factory. The wages are set at £2 and she has to pay £7 to the bank (3 X £2 wages, 1 X £1 operating costs for machines).



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.

The following development tiles influence the wages and operational costs for machines: *foreman*, *workshop*, maybe *school*.



If a player has the *foreman* in his active factory, up to 4 workers in this factory receive a wage that is reduced by £2 (to a minimum wage of £1 per worker). The other workers,

if any, get the regular wages.



If a player has the *workshop* and assigned the maintenance (operational costs) function to the current factory, he only pays a flat fee of a maximum of £1 for all his machines,

no matter how many are in the factory.

Example: *There are 6 workers and 3 machines in Marion's lamps factory in the first 3 production rows. The wages are £4 according to the job market. Regularly Marion has to pay a total of £27 wages (£24 for 6 workers plus £3 operational costs for 3 machines). With a foreman she only pays £19 (the first 4 workers get a total of £8, the other 2 as well, plus £3 for machines). With a foreman and a workshop her costs would be reduced to £17.*

When a production row is closed via a school, no wages or operational costs are paid for it.



III.4 Shipment of active goods

Now the players decide if they intend to fulfill their contracts for the active kind of goods. In the *production* phase the players may only fulfill contracts of the active kind of goods – they may not ship any other goods. Fulfilling a contract is voluntarily.

To fulfill a contract a player has to have goods tokens of the active kind of goods and sufficient ship capacity – according to the space of the contract on the *ongoing contracts* track.

A player has to fulfill a contract completely in this phase; shipping only parts is not possible. *For a contract in space 6 the player therefore needs 6 goods from production or from the warehouse and a total ship capacity of 6.*

To calculate the ship capacity a player may add the capacity of both of his ship markers, no matter where they are at his pier or the administration table. Using the ships is free of charge.

For each delivered goods token the player gets money according to the building costs of the factory (= basic quality) of the active goods (i.e., without taking into account quality- and distribution markers).

The price on the price scale on the factory mat does not count. The player puts delivered goods tokens back in the common supply.

For each used ship the player has to move his share value indicator 1 space backwards. This means, if he uses only the capacity of one ship, he moves the indicator one space backwards, even if he owns two ships.

When a player has sold some goods tokens of the active kind of goods via the regular demand at the job market and then delivered some goods, he first moves the share value indicator forward, then backwards.

After fulfilling the contract the player puts the contract marker back next to the *ongoing contracts* track.

Example: *Marion fulfills her contract of 6 clothes and uses her 2 ships with a total capacity of 6 (a ship with a capacity of 2, another one with a capacity of 4). Because the clothes factory is at level 1 she receives 6 x £9 = £54. For the 2 used ships her share value indicator is moved 2 spaces backwards.*

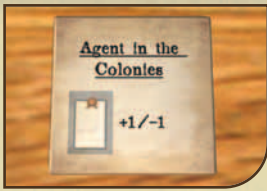
No-fulfilled contracts of the active goods now have to be increased by 1 space. Therefore a player has to deliver more goods to the East India Company next time if he was unable to ship the required goods. If the contract marker is already in space 10 it is not advanced; it stays. However, the player has to immediately move his share value indicator 2 spaces back.

2-player game: The players suffer from a decrease of the share value already when the contract marker is in the 4 space. The contract marker stays in that space and the player has to immediately move his share value indicator 2 spaces back.

The following development tiles influence the shipment of the active kind of goods: *office, agent in the colonies.*



If a player owns the *office*, he receives an additional profit of £5 when shipping.



If the player has the *agent in the colonies* he may increase or decrease the value of one contract by 1 goods. Therefore he will need more or less goods and ship capacity. As

an example, he could fulfill a contract in the 6 space as a 5 or 7 contract.



III.5 Storage and Decay

Now the players store their produced goods which they could not sell. They either need their large warehouse or the development tile *small warehouse*. All goods for which there is no room in these two warehouses have to be returned to the common supply (without compensation). In the warehouse of the harbor mat the player needs workers to use the spaces. Workers in a column permit the storage of several goods of one kind. Workers in a row permit the storage of several different kinds. The player may only use storage space already in place.

It is not allowed to hire or transfer workers at this time to change the warehouse capacity. This is only possible in the action phase with the workers action marker.

The following development tile influences the storage: *small warehouse*.



If a player owns the *small warehouse* he may store up to 5 goods tokens without using the large warehouse and any workers. The stored goods are placed on his price scale

of the corresponding kind of goods.

A player may not use spaces with goods as price spaces. In the rare case that a player already has his price marker on one of his last spaces, he may only store as many goods of this kind as there are spaces to the right of the price marker.

The player may store up to 5 goods of any kind. If he has more goods, he may return any goods from the warehouse to the common supply (without compensation!) to store other goods.

Example: *Marion* has stored 2 food and 1 cloth and would like to store 3 lamps. If she wants to store all 3 lamps she has to return either 1 food or the cloth.

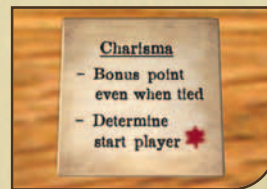


IV. End of the Cycle

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.

The following development tile influences the selection of the start player: *charisma*.



If a player owns the development tile *charisma* he may return it to determine the start player.

6.0 END OF THE TURN PHASE

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



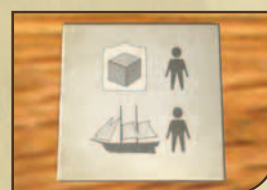
I. Returning Action Markers

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.

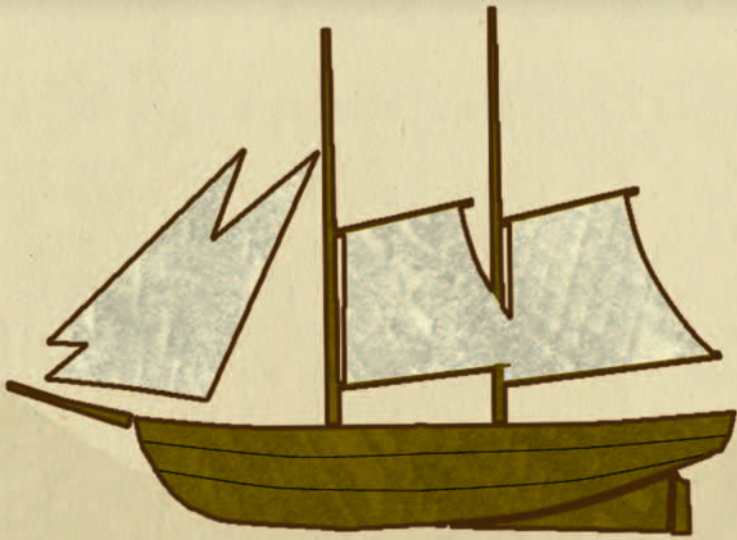


II. Event Phase: Pay for Workers on Ships and in the Warehouse; turn over Event Marker

In each *event phase* the players pay the wages for workers on ships and in the warehouse and implement the event afterwards.



The flipside of the event marker reminds the players that they have to pay the costs for workers on ships and in the warehouse at the end of the decade. They now pay the current wages for all workers on their ships (the ship crews) and in their warehouses according to the information on the *job market*.



Example: Marion has 1 worker on her ship with capacity 4; the ship with capacity 2 does not need a worker/ship crew. She does not have workers in her warehouse. She pays the current wage of £4.

When the workers on ships and in the warehouse have been paid, each player may fire as many as he desires (returning ships, too). Returned ships are placed back to the corresponding space on the *special marker mat*. They again may be used by all players. All fired workers are placed in the *fired workers area*. When the player now does not have enough space in his warehouse, he has to return goods from it to the common supply.

If a player wants to fire workers from a ship, he has to return the ship to the common supply on the *special marker mat*. He may not exchange the ship or only fire a part of the workers.

Now the *event marker* is flipped and the event on the front is implemented. The event effects are depicted on the front – all details are in the player's book.

If the start player moves the timetable indicator on the event marker *end of the game*, the game ends.

As shown on the marker, all players now together conduct together a *stock exchange action*. Each player has the chance to sell goods in the warehouse for a fixed price. Afterwards they may purchase as many shares as they can with their cash.

Now the players determine the winner.

Example: Marion has a share value of £22 at the end of the game – her share value indicator is on space 36. She already owns 16 shares and has £84 in cash. Marion buys 3 more shares for a total of £66. She ends with £18 in cash and 10 shares in her portfolio.

The following development tile influences the event phase: *broker*.



If a player has the *broker* he may sell as many warehouse goods as desired and buy and sell shares in each event phase.

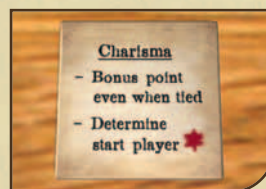


III. Changing the Start Player

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.

The following development tile influences the *start player selection*: *charisma*.



If a player owns the development tile *charisma* he may return it to the common supply to determine the new start player.

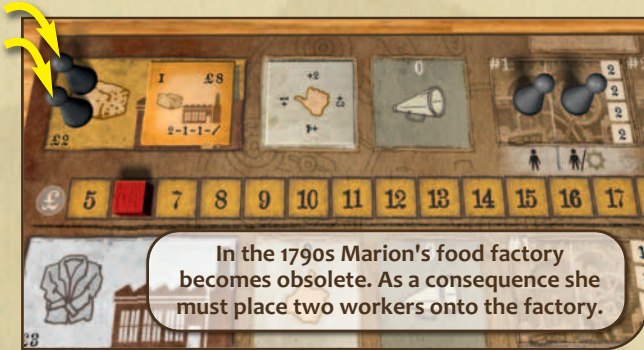


IV. Factories become obsolete

Before the new decade begins all players check if their factories become obsolete. In *water frame* this happens in the 1790 to 1810 game turns. Now 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).



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 begin-

ning 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.

The other players now have to check if their share value decreases before the winner is determined.

The following steps are only conducted right before the winner is determined. When the players implement the *end of the game* event marker they have pay the current share price when they buy shares.

1. For each factory that still has a worker via the *workers* action on the factory marker (from last game turn), a player has to move back his share value indicator 4 spaces and put back 2 shares into the bank.
2. For each contract marker on the ongoing contracts track the player has to move his share value indicator back as many spaces as the value of the contract.

Example: Marion still has a contract marker on space 6. She now has to move back her share value indicator 6 spaces.

When a player has a contract on space 10 he has to move his share value indicator back 10 spaces in any case. Any reduction of the share value because this 10-space-contract was not fulfilled during the game does not matter!

A development tile *agent in the colonies* does not influence unfulfilled contracts in any way.

Finally the players determine the value of their company. They multiply the number of shares they own with the current share value.

The player with the highest value is the winner. If there is a tie, the player with the most cash among the tied players is the winner. If there is still a tie, there are several winners.

Example: Marion has bought 3 shares at value £24 when the event *end of the game* was implemented. She now has a total of 19 shares. Her share value indicator is on the 41 space. She could not fulfill her contract on space 6 – therefore the share value indicator is moved back to space 35. Her shares now have a value of only £22.

Marion has made $19 \times £22 = £418$.

Without the contract her result would have been $19 \times £24 = £456$.

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